

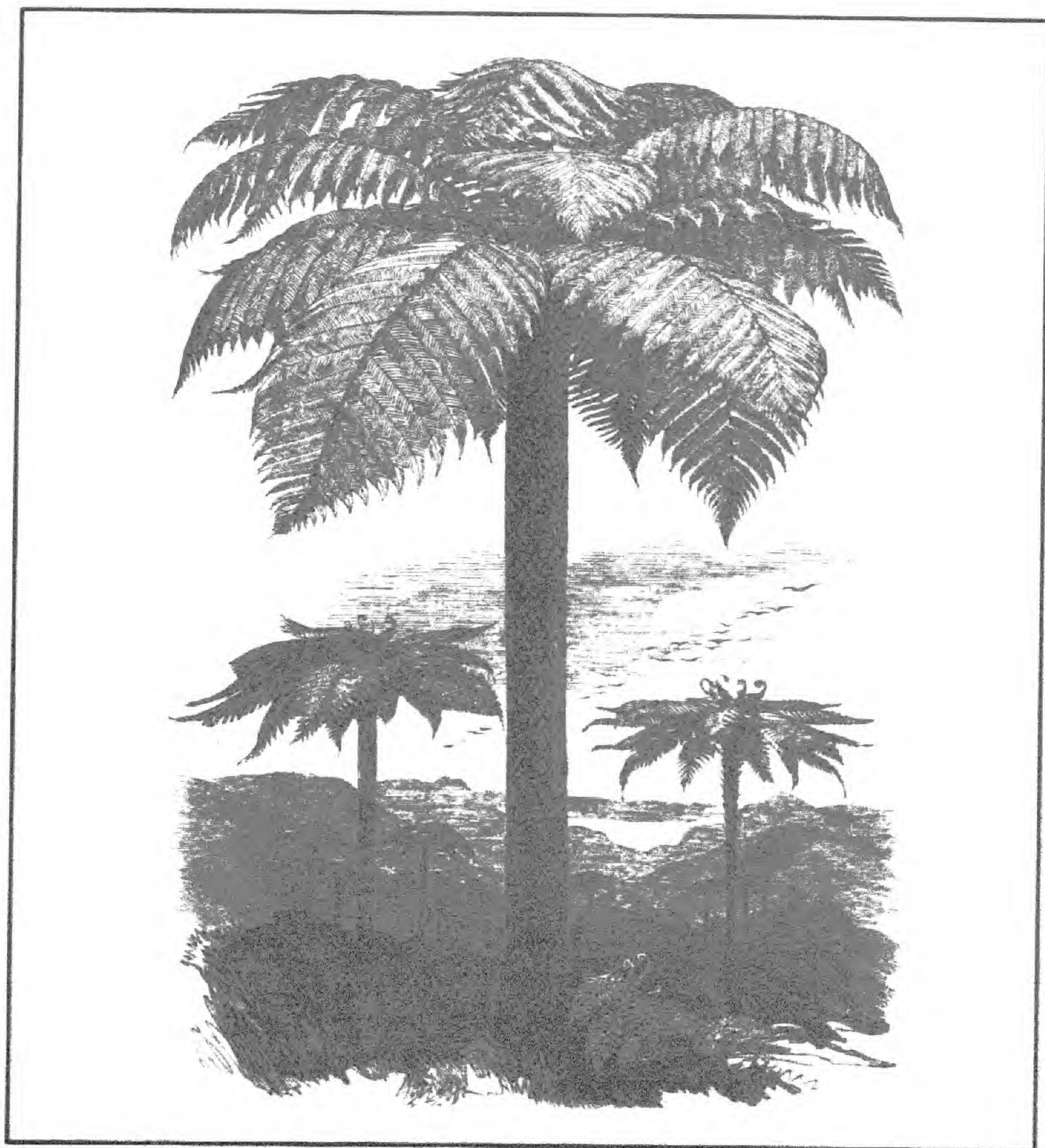
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Edited by A.M. Paul

THE BRITISH PTERIDOLOGICAL SOCIETY

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The **BRITISH PTERIDOLOGICAL SOCIETY** was founded in 1891 and is still a focus for fern enthusiasts, its wide membership including gardeners, nurserymen and botanists, both amateur and professional. It provides a wide range of information about ferns through its publications and website, and also organises indoor and field meetings, garden visits, a plant exchange, a spore exchange and fern book sales. The Society's journals, *The Fern Gazette*, *Pteridologist* and *Bulletin*, are published annually. *The Fern Gazette* publishes matter chiefly of specialist interest on international pteridology, the *Pteridologist*, topics of more general appeal, and the *Bulletin*, Society business and meetings reports. **Website: www.eBPS.org.uk**

Membership is open to all interested in ferns and lycophytes. **SUBSCRIPTION RATES** (due on 1st January each year) are Full Personal Members £25, Personal Members not receiving *The Fern Gazette* £21, Student Members £12.50, Subscribing Institutions £42. Family membership in any category is an additional £2.50. **Airmail** postage for all journals is an extra £10, or for those not receiving *The Fern Gazette* £5. Applications for membership should be sent to the Membership Secretary (address above) from whom further details can be obtained. **Standing Order** forms are available from the Membership Secretary and the BPS website.

(Front cover: *Dicksonia antarctica* with *Cyathea dealbata* (left) and *Dicksonia squarrosa* (right). Illustration from: B.S. Williams (1868) *Select Ferns and Lycopods*.)

Back numbers of *The Fern Gazette*, *Pteridologist* and *Bulletin* are available for purchase from P.J. Acock, 13 Star Lane, St Mary Cray, Kent BR5 3LJ; E-mail: BackNumbers@eBPS.org.uk

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RETIRING PRESIDENT'S ADDRESS
FERNS AND CONSERVATION

Mary Gibby

(Presented before the AGM at Royal Botanic Garden Edinburgh, 6 April 2013.)

My introduction to the British Pteridological Society was in 1970 when, as a summer student at the British Museum (Natural History), I was whisked off to Scotland by Clive Jermy to study ferns generally, and *Dryopteris* species and hybrids in particular, in the company of Jimmy Dyce and Tony and Barbara Worland. What a great introduction – enthusiastic and educational company in the field and memorable evenings discussing the highlights of Ben Alder over a tot of malt whisky. Little wonder then that ferns were my chosen subject for research.

Since the mid-1990s, and, more particularly, after 2000 when I moved from the Natural History Museum in London to the Royal Botanic Garden Edinburgh, my research has expanded from questions of evolution and speciation to address conservation issues.

The Convention on Biological Diversity (CBD), launched in Rio de Janeiro in

1992, placed the responsibility for conservation firmly at the door of each national government, and set the scene for expanding research to support conservation efforts at home and overseas. There has been a similar shift in the activities in the Society and amongst BPS members, and increasingly we see more activity devoted to conserving our fern flora. Over many years BPS members have increased knowledge of our native flora through exploration and recording, not only at home but also abroad through a succession of overseas field trips. It seemed, therefore, appropriate for me to choose the Society's wide range of activities that support *conservation* and *ferns* as the theme for my presidential address.



photo: M. Wada

Mary Gibby at RBGE

The Global Strategy for Plant Conservation (GSPC), formally adopted by the CBD in 2002, was developed by botanists and conservationists to provide a framework for working together at all levels – local, national and global *to understand, conserve and use sustainably the world's immense wealth of plant diversity whilst promoting awareness of their importance and their conservation needs*. The GSPC provides a framework not just for research institutes, universities and the conservation agencies, but for all of us, including, of course, the BPS.

Why do we need to conserve ferns? I explore this by looking first at the history of pteridology in the UK – exploration, discovery and recording of some of our iconic species – to see how we have arrived at the present situation, and then illustrate how our activities are helping to conserve ferns today. There is no doubt that over-collecting, particularly in the Victorian period, devastated many fern populations and particularly the rarer species but more recent changes in twentieth-century farming practices and land management, increasing urbanisation and, more recently, climate change are continuing to have a significant effect.

History

In the Victorian period enthusiasm for ferns exploded into Pteridomania; this had a positive outcome as exploration led to discoveries of species new to the UK, extended the known range for many species and uncovered an amazing number of varietal forms of ferns. An extensive range of publications on ferns, their identity and distributions helped to fuel the enthusiasm, but also led to significant detriment of some of the rare fern populations through over-collecting. This is well-documented in the following examples.

The Killarney fern, *Trichomanes speciosum*, is a flagship for conservation in the UK. The first record of this fern in the British Isles was from Yorkshire. It was discovered by Richard Richardson “under a dripping rock, a little below the spring of Elm Cragg Well, in Bell Bank, scarce half a mile from Bingley” (Bolton, 1721-4). In *Filices Britannicae* (1785) James Bolton records that he “saw it in plenty in the year 1758: some alterations being made about the well, for the convenience of the proprietor, the cavern was destroyed, the plant perished, and was lost to Great-Britain till the year 1782”, but the small population was destroyed through subsequent over-collection.

In Scotland, the first discovery of *Trichomanes speciosum* was in 1863 by Robert Douglas, the ‘walking postman’ of Arran. His find was confirmed by the Edinburgh naturalist, W.B. Simpson, who suggested that Douglas should keep the information secret. Douglas, however, showed the site to “some gentlemen from Glasgow”, one of whom, perhaps George Combe, returned and stripped the site almost bare. The evidence of this discovery and its subsequent collection is preserved in the herbarium at RBGE, where a small specimen from Arran is accompanied by a letter sent by Walter Galt to John Sadler (then secretary of the Botanical Society of Edinburgh but later a curator of the Royal Botanic Garden Edinburgh).

26 August '63

Dear Sir,

I enclose you fronds of *Trichomanes radicans* collected on Monday by Mr George J Combe in the Island of Arran, Firth of Clyde – it occurs in five separate patches one of which is about three feet square – seemingly a natural habitat. The precise locality we wish to keep quiet so as to prevent its being cleaned out.

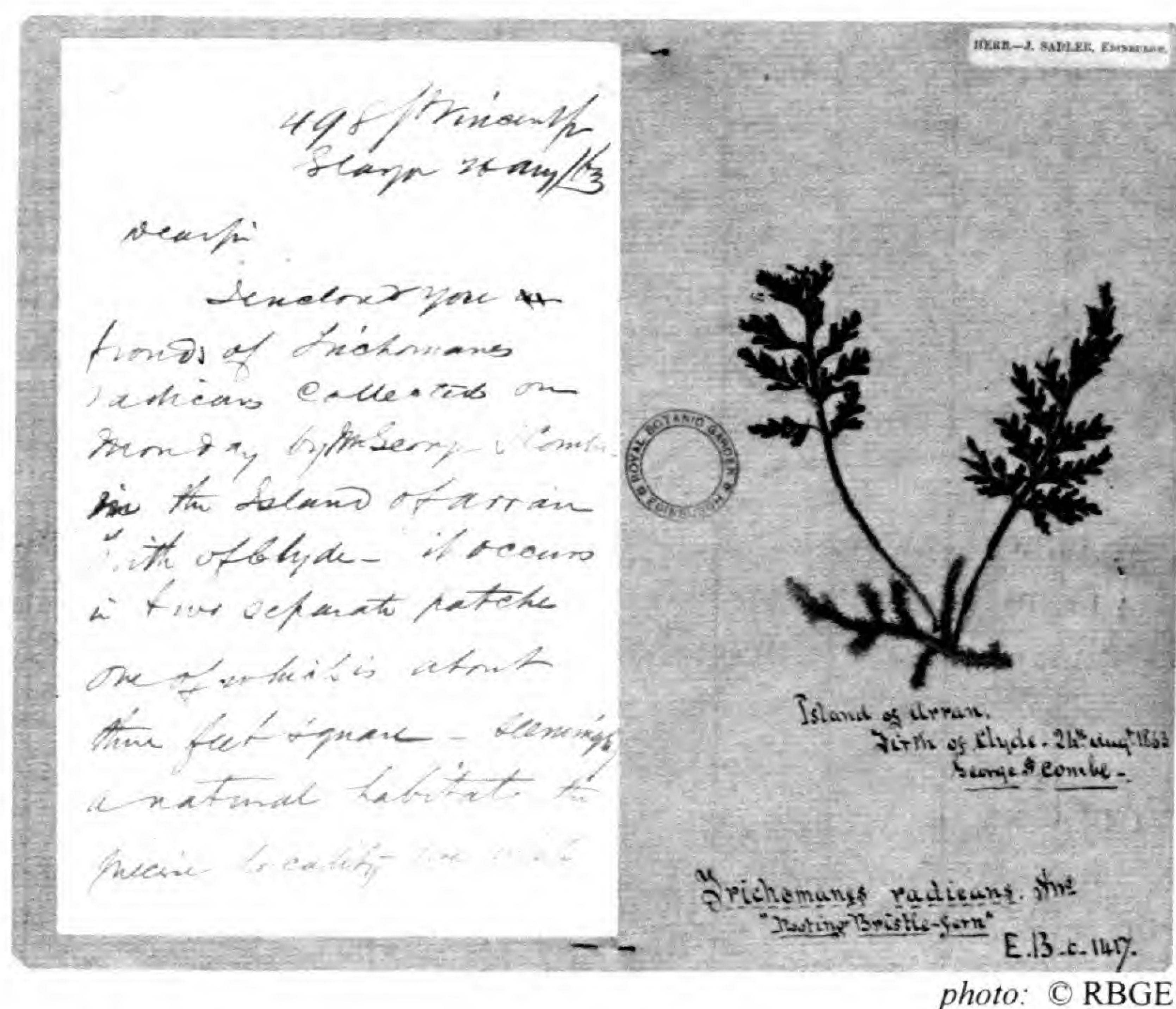
I am

Truly yours

Walter Galt

John Sadler Esq.

The image of this, shown below, (and those of other herbarium specimens) can be found on the RBGE website at <http://elmer.rbge.org.uk/bgbase/vherb/bgbasevherb.php>.



***Trichomanes speciosum* collected on Arran by George Combe, in Sadler's herbarium at RBGE**

The Killarney fern was discovered in North Wales in the same year, by J.F. Rowbotham (reported by Thomas Moore, 1863), although the site was kept secret. But once a discovery is made, others will eagerly explore the area. Within a year, James Backhouse presented specimens of the fern at a meeting of the Botanical Society of Edinburgh (*Transactions of the Botanical Society of Edinburgh* 8:111 [11 February 1864]), accompanied by the following note "I have much pleasure in forwarding herewith

specimens of *Trichomanes radicans*, found by my father and myself in a truly wild state in Caernarvonshire. The plant was remarkably luxuriant."

1863 was also the year of publication of William Carruthers' slim volume, *The Ferns of Moffat*. The book has detailed descriptions of all the known ferns of the area. Opposite the description is a blank page left for the insertion of a herbarium specimen, presumably by the book's owner. Of oblong woodsia (*Woodsia ilvensis*), Carruthers says it is "one of the rarest of British ferns, and one of our ornaments of Moffat", yet one copy of the book in the RBGE library shows mounted on the page a whole pressed plant specimen including roots. Earlier, in 1858, John Sadler published an account *Ramble among the wild flowers of the Moffat Hills in August 1857; with a List of Plants to be found in the District*, where he describes finding *Woodsia ilvensis*: "the plant does not seem to be very plentiful where we visited, five small tufts being all we observed, of which we took four, leaving the other as an 'egg in the nest'"! John Sadler's voucher specimen from this trip is preserved as yet another herbarium specimen at RBGE. It is hardly surprising that such enthusiastic collecting led to a devastating decline of *Woodsia ilvensis* in the Moffat hills.

However, there was beginning to be recognition of the need for conservation. In 1864 the Council of the Royal Horticultural Society "offered ... prizes for the encouragement of the study of scientific botany", with medals to be awarded for the best collections from each county (*Journal of Botany* 2:96), but was inundated with correspondence protesting that populations of rarer species would be decimated, e.g. "serious injury will be caused to the native plants of England by the prizes recently offered by the Society" (letter signed by Charles C. Babington, Professor of Botany, Cambridge; Churchill Babington, B.D., F.L.S.; C. Darwin, M.A., F.R.S.). The need for conservation was at last being recognised. In response, the RHS modified the terms of the competition to exclude rarities; part of one of the prize-winning collections, which includes many of our commoner ferns, is preserved in the herbarium of Manchester Museum. Another prize-winning collection of ferns is

preserved as a bound album (Hortus Siccus) at RBGE; the collection was made in 1872 by Isaac Bayley Balfour, at the time a student at Edinburgh University, but who later became Regius Keeper. Amongst the Scottish rarities is '*Athyrium flexile*' but, other than 'Scotland', no locality is given.

Shirley Hibberd, in his book *The Fern Garden* (1869), also expressed concern that fern specimens were being wantonly uprooted: "I saw amongst a heap of dried mosses, ferns, grasses etc., in the possession of a lady, a sheet of Tunbridge fern nearly a yard square. This had been torn from a native site, carefully rolled up like a piece of old blanket, and put away, and was afterwards brought forth as a trophy Such reckless destruction, such base contempt for the value set upon a rare fern by those who understand its history and its habits ... is to be considered a crime."

BPS and the Global Strategy for Plant Conservation

The five objectives of the GSPC are that:

- I Plant diversity is well understood, documented and recognized;
- II Plant diversity is urgently and effectively conserved;
- III Plant diversity is used in a sustainable and equitable manner;
- IV Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on Earth is promoted;
- V The capacities and public engagement necessary to implement the Strategy have been developed.

From this list we can see a diversity of ways in which we, as members of the BPS, can contribute to the GSPC, and for many years now the Society has had a Conservation Officer to help keep us on the right track. Firstly, for example, documentation; recording continues to be an important element in plant conservation, particularly now when distributions are changing as a result of changes in climate as well as increased urbanisation, pollution or altered land management.

Exploration can result in the discovery of species new to an area, for example, *Cystopteris diaphana* in Cornwall, or new to science, as in the case of *Hymenophyllum* × *scopularum* in the Bewcastle Fells, Cumbria. What is the situation concerning our rare ferns mentioned above? Luckily they are still extant, though their conservation status remains of concern. For example, the Killarney fern is listed on Annexes II and IV of the Habitats Directive, on Appendix 1 of the Bern Convention and is listed as rare on the IUCN global Red Data List. This made the discovery of the Killarney fern at a completely new locality in the North York Moors by Ken Trewren in the mid 1990s of particular significance – a discovery that led to the site being declared a Special Area of Conservation, thus fulfilling both Objectives 1 and 2 of the GSPC.

Oblong woodsia is listed as Endangered for the UK, with fewer than 100 individual plants surviving in England, Scotland and Wales, and most of these being at one site in Cumbria. When populations are wiped out, or reduced to very low numbers, then one conservation approach is to consider a re-introduction or re-enforcement programme if sites with suitable habitats still exist. This has been the approach taken for *Woodsia ilvensis* by RBGE. Following the establishment of an *ex-situ* collection of plants grown from spores that were collected under licence from all the populations, several rounds of re-introduction have been made in Teesdale, the Moffat Hills, Glen Feshie and Cumbria. Now staff and volunteers from a range of organisations – Natural England, National Trust, National Trust for Scotland, Scottish Natural Heritage – are helping to monitor the new populations to gather information on survival rates and, we hope, any evidence of natural expansion. BPS members are encouraged to get in touch with Heather McHaffie if they would like to be involved.

When studying plant records, it is interesting to look at the case of the discovery of *Ophioglossum vulgatum* in Holyrood Park in Edinburgh. This area had been well botanised for centuries by locals, including many exploratory trips by members of the newly formed Botanical Society of Edinburgh in the mid-1800s, when they made many collections of *Asplenium septentrionale* from the basaltic rocks below Arthur's Seat. Sheep grazing was finally removed from the park in 1978, and the first report for *Ophioglossum* followed in 1989. Yet the population there is enormous, and must have been there for centuries, but hidden; grazing must have severely reduced the size of the plants in the past for them to have been overlooked for so long. Over 100,000 plants were counted in Holyrood Park in 2009, and the population continues to flourish and is now regularly monitored by rangers. Looking through the herbarium at RBGE, Heather McHaffie and I were surprised to find that there was no herbarium record of *O. vulgatum* from the site, but obviously this has now been rectified.

For me it is always something of a pleasant surprise to come across adder's tongue and moonwort. Members of the Yorkshire Group of the BPS have been monitoring populations of *Botrychium lunaria* over several years. This started at sites in the North York Moors, but then moved on to the Pennine Dales. Barry Wright explained to me: "you cannot conserve something that you do not know exists or have no knowledge of its frequency, distribution and abundance Surveying for moonwort and adder's tongue is fraught with observational difficulties, linked partly to coinciding with the optimum survey window and also, as we found, the diligence and observation skills of the surveyors. In one year we surveyed the same sections of roadside with four different surveyors approaching in the same directions and there were consistent differences between them. In some cases some observers recorded as many as twice the number of another observer, even though they had surveyed the same section of road in the same direction on the same day." The BPS Scotland Group, led by Frank McGavigan with Frank Katzer, has been monitoring populations of *Woodsia alpina* over many years. There are well-documented historical records of the species, but populations can come and go, owing to a variety of factors. Monitoring almost invariably involves a very long trek to a remote site in the Highlands, then intense searching for these tiny ferns on cliffs and rock ledges. Monitoring sites for *Lycopodiella inundata*, also by the Scotland Group, is perhaps physically less challenging, but it still takes time to 'get your eye in' to pick out these little plants from the surrounding vegetation before survey work can start.

Detailed recording over many years can be very informative, and may reveal changing distribution patterns and even the effects of extreme climatic conditions. Michael Braithwaite of the BSBI has studied the distribution of *Asplenium scolopendrium* in Berwickshire; he compared pre- and post-2000 records to explore temporal changes. He was able to demonstrate a significant recent expansion in the range of the species, with colonisation mostly into open woodland banks, and many of these sites are close to more ancient populations in wooded valleys. The expansion in distribution may perhaps be the result of a series of warmer and wetter winters that has allowed establishment in new areas.

This contrasts with changes recorded in populations of *Athyrium distentifolium*. Heather McHaffie's PhD research involved regular monitoring of populations of *A. distentifolium* over a three-year period in the 1990s, and she led a local BPS meeting to one of these sites in 2002, where members could enjoy the sight of a healthy mixed population of *A. distentifolium* and var. *flexile*. However, on a visit in 2003, she found that the population had been devastated; it became evident that this had been caused by lack of snow cover during the cold but dry winter of 2002/3, when the crowns had been frosted (McHaffie, 2006 *Pteridologist* 4(5): 162-164). Even some ten years later there are few signs of recovery in this *Athyrium* population, clearly demonstrating that current distributions can be the result of chance periodic but extreme climatic events, and hard to predict.

Graham Ackers was involved with conservation of a different type – that of conserving the Society's herbarium, by curating all the material when the specimens were moved to the herbarium at the Royal Horticultural Society. The specimens themselves are now conserved, and the information that they hold – the illustration of the wide diversity of forms and varieties of species that were discovered and preserved by past BPS members – means that we have a valuable and permanent record of this diversity. The list of specimens from the BPS herbarium now held at RHS is some 13 pages long and accessible on-line. Knowledge of past and present fern varieties is also captured within BPS publications, as in Jimmy Dyce's book on *Polystichum* cultivars, whilst knowledge of species and cultivars in cultivation by members is being developed by Roger Golding as part of his *Garden Ferns* project.

Conservation of the rich history of ferns has not been forgotten. It has been very rewarding to see in recent years that some of the jewels of the Victorian fern craze have been brought back, with the restoration of ferneries at Ascog and Benmore. BPS members, and particularly Frank McGavigan, have worked hard to try to ensure that these will flourish in the future.

GSPC objectives 4 and 5 are a high priority in the Society today. The BPS has a long legacy of educational activities, particularly in the identification and cultivation of ferns. With the establishment of the Education Subcommittee, this has gone from strength to strength. We regularly have BPS stands at flower shows, museums and gardens, and the committee has produced a beautiful set of posters about ferns and the Society, and many useful leaflets on a wide range of topics, from the fern life-cycle to selecting ferns for a dry, shady garden. The education role now reaches out to the public at large and in doing so helps to encourage new membership and strengthen the activities of the Society. This outreach to the wider public is enhanced by our web presence, and through the new on-line newsletter.

And so I end on a very positive note. The Global Strategy for Plant Conservation has set out a plan of action for this decade, and it is fantastic to see how we in the Society are working together to help deliver some of the key elements that help towards conserving ferns and lycopods.



photo: B.D. Smith

Horgabost shore-line, South Harris, Outer Hebrides

Gill Smith, Roger Golding, Bruce Brown, Grace Acock, Lindsey Holleworth, Paul Ripley,
Jonathan Lamb, Jennifer Ide, Pat Acock, Yvonne Golding, Roland Ennos,
Paul Smith (*kneeling*), Jacqueline Christmas, Chris & Alison Evans, Bryan Smith

NATIONAL FIELD MEETINGS

NORTH & SOUTH HARRIS, OUTER HEBRIDES – 9-14 June

(Leaders: Paul Smith & Pat Acock)

Introduction

Pat Acock

At the planning stage we were very fortunate to have on board Paul Smith, the BSBI Vice-county Recorder for the Outer Hebrides, who was very willing to help with the preparation and also to join us for the whole week. Paul proved to be most amenable, outlining a programme and willing to adapt it to the conditions and to the needs of participants. We confined ourselves to North and South Harris, principally on the areas of gneiss veined with granite and the grey gneiss. Prevailing winds from the west brought in calcareous sand that had modified the coastal substrate a little, allowing some lime-loving species to establish, but peat was by far the most common soil type. There is little evidence for much tree cover after the last glacial period, and the present machair vegetation began to develop from about 2000 B.C., coinciding with the increasing influence of man and progressive impoverishment of the flora.

Travel plans to the islands by our group of 16 were varied. The three cottages that we rented were about ten miles apart, so careful planning of our meeting place each day was essential.

Sunday 9th – Horgabost & Abhainn Gil an Tàilleir, South Harris

Roger Golding



photo: R. Golding

Looking at *Equisetum*, Horgebost, Harris

Paul Smith, Pat Acock, Paul Ripley

In the morning we explored the stabilised dunes and machair near Horgabost on the west coast of Harris (18/0475.9686). Marshy areas held water horsetail (*Equisetum fluviatile*) and shore horsetail (*E. × litorale*), with field horsetail (*E. arvense*) on the drier ground. Paul Smith pointed out the rather rare curved sedge (*Carex maritima*), which is now confined in Britain to Scottish coastal sites. Along the almost vertical edges where the machair dropped off to the beach, we eventually found variegated horsetail (*E. variegatum*) (18/0455.

9692), mostly growing out almost horizontally and often almost invisible amongst the grass and other vegetation. A record from here of Mackay's horsetail (*E. × trachyodon*) could not be confirmed, despite diligent searching and much discussion. A little higher up on the headland we found adder's tongue (*Ophioglossum vulgatum*) (18/0419.9716) growing in the slightly damper grassy patches between boulders – very small and doing a strong imitation of *O. azoricum*, along with lesser clubmoss (*Selaginella selaginoides*).

After lunching among the adder's tongue, we drove a little further north to a small ravine, Abhainn Gil an Tàilleir, (parking at 18/0822.9640). On the moorland and among rocks were a range of ferns typical of acid soils: lady fern (*Athyrium filix-femina*), broad

buckler fern (*Dryopteris dilatata*), hard fern (*Blechnum spicant*) and lemon-scented fern (*Oreopteris limbosperma*).



photo: R. Golding

Lunch at Horgebost, Harris

Grace & Pat Acock, Yvonne Golding

On the sides of the ravine itself we found common polypody (*Polypodium vulgare*), narrow scaly male fern (*Dryopteris cambrensis*), lesser clubmoss, fir clubmoss (*Huperzia selago*, probably subsp. *selago*) and beech fern (*Phegopteris connectilis*). A few plants of maidenhair spleenwort (*Asplenium trichomanes*) looked like good candidates for subsp. *trichomanes*, although this remains to be confirmed.

Monday 10th – An Cliseam, North Harris

Yvonne Golding

Eleven of us succeeded in climbing the highest mountain on the Outer Hebrides – An Cliseam at 799 metres. We set off from the road (19/1741.0575) and climbed steadily. Our aim was to re-find an old record of parsley fern (*Cryptogramma crispa*) and record anything else that we might come across. As at all other acidic sites we visited, the commonest ferns were hard fern and lemon-scented fern. In addition, we found broad buckler fern and, of course, scaly male fern (*D. affinis* agg.). *Selaginella selaginoides* was abundant on the wet moorland areas growing with long-leaved sundew but of particular interest were the two subspecies of fir clubmoss, *Huperzia selago* subsp. *selago* and subsp. *arctica*. The latter was more common, often yellowish in colour, with narrow appressed leaves and rather more irregular rings of bulbils than its ‘cousin’ subsp. *selago*. This was a new one for most of us.

As we went higher, northern buckler fern (*Dryopteris expansa*) became more evident. In rocky crevices we found several fine-looking plants of beech fern, and also Wilson’s filmy fern (*Hymenophyllum wilsonii*), which we might have missed had it not been pointed out by Paul Smith. After much hunting over rocky boulders, our star fern hunter, Roger Golding, found an extremely healthy population of parsley fern, which was growing along with the pretty starry saxifrage (*Saxifraga stellaris*).

Higher still, two *Dryopteris* plants were found that had us scratching our heads (not just because of the midges!). These looked intermediate between *D. dilatata* and *D. expansa* and thus at least one of these was most likely to be the hybrid, *D. × ambroseae*. Near the summit alpine clubmoss (*Diphasiastrum alpinum*) was found. At the top we rested (some longer than others!) and had wonderful views over the whole island. *Athyrium filix-femina* was also spotted early on by the river and higher up under rocks.

Jennifer, who had needed a less physical day, spotted *Asplenium scolopendrium*, uncommon in the Hebrides, and *A. trichomanes* in the protective bank of rocks on the road bridge abutment. On the way back to our respective houses, a number of us stopped at the roadside drainage ditch where *Equisetum × dycei* was first recorded (18/1490.0477). Apparently the A859 had been widened and the ditch moved back, and perhaps as a consequence only *E. × litorale* was found. Overall, a very satisfying day’s ferning!

Tuesday 11th – Liceasto & Loch Stocinis to Loch Glumradh Beag, South Harris

Alison Evans

We met at Liceasto, 18/1211.9215, on the east side of South Harris, near the head of Loch Stocinis. On the roadside we noted *Blechnum spicant*, *Oreopteris limbosperma*, *Dryopteris dilatata*, a small *D. filix-mas* (a rare fern here) and a scaly male fern that was a bit puzzling until we saw all the *D. cambrensis* growing on the hillside. We made our way up a grassy slope, noting bracken (also quite uncommon here) and lovely stands of *Oreopteris limbosperma* with very photogenic croziers. On the walls of a ruined house we found *Polypodium vulgare* and *Asplenium trichomanes*, probably subsp. *quadrivalens* as it was growing in mortar. We made our way to the base of the cliffs along the side of the loch, where there was a splendid colony of *Dryopteris aemula* at 18/1225.9189, and a rather less splendid *Hymenophyllum wilsonii* looking very brown and shrivelled. The slope below the cliffs became steeper, so when we saw a different scaly-male fern growing above our heads at 18/1236.9176, only Roger climbed up to identify it as *Dryopteris borreri*, obviously different from the very typical *D. cambrensis* that we had been seeing. We then took it in turns to go along a narrow ledge to see a plant of *Asplenium marinum* nestling under a rocky overhang, and also *A. adiantum-nigrum* growing close by. We returned to our starting place by a lower route, checking the shore-line for more sea spleenwort, but didn't find any. We then ate our lunch sitting on the grassy slope with a view over the loch.

After lunch we drove a short distance to the head of Loch Stocinis, parking at 18/1264.9294. As we left the cars we found the orchid *Dactylorhiza incarnata* subsp. *pulchella*, and also *Equisetum arvense*, not the commonest horsetail on the island! We walked up a track, stopping to read the stone that marks this as the old coffin road to the graveyards of the west coast, where the soil is deep enough for burials. We left the track by some sheep-pens, and soon reached the shores of a small loch, Glumradh Beag, where almost at once we found washed-up quills of *Isoetes lacustris*. Then Paul Smith found a growing plant of this at 18/1255.9340. A little further on, he spotted a much larger plant with curved quills at 18/1251.9339, which was later confirmed as *I. echinospora* on microscopy of the megaspores. We took the opportunity to photograph the two for comparison. Our next find was a small plant of *Osmunda regalis* at 18/1248.9338, just on a corner where a stream comes into the loch. We followed the stream up to a little bridge, where we found a plant of *Dryopteris borreri* at 18/1249.9331. It was starting to rain by now, and having achieved our objective of finding the quillworts, we ended the 'official' ferning for the day.

The people staying on the west side of the island decided to drive home by way of Leverburgh, in the south of the island. We stopped in Rodel at St Clement's church, the burial place of McLeod clan chiefs, and in addition to admiring the stone carvings we noted *Asplenium ruta-muraria* at 18/0478.8318, and also *Oreopteris limbosperma*, *Athyrium filix-femina*, *Asplenium adiantum-nigrum* and *A. trichomanes* in the churchyard. We stocked up with provisions in Leverburgh, then stopped again on the west coast to investigate a roadside crag below Maodal (08/9938.9080). We were looking for thyme broomrape, but although there were several of last year's spikes in evidence, there was only one of this year's, barely an inch tall. We did find *Asplenium ruta-muraria* though, a new location for the island.

Wednesday 12th – Sgurr Sgaladail, North Harris

Paul Ripley

In steady but light rain, all but two of our group set off from the bridge on the A859 over the River Sgaladail (19/1827.0992), to walk up Gleann Sgaladail. Overnight rain had restored the landscape to its normal wet condition. Following the river up the glen, we saw *Equisetum fluviatile*, and dense stands of fresh bright green *E. palustre*, only just forming side branches. We also noted *Dryopteris dilatata*, *Huperzia selago* subsp. *arctica*, and the ubiquitous *Blechnum spicant* and *Oreopteris limbosperma*.

Further on, under the scarp of Sgurr Sgaladail, were large boulders, and in the deep shade underneath these (19/1683.0850) we found *Phegopteris connectilis*, *Athyrium filix-femina*, *Cystopteris fragilis*, *Dryopteris aemula* and a single but convincing *D. expansa*. Our novice, Jonathan Lamb, found what we thought was the fern of the day, if not of the week; however, what we thought was *Cystopteris montana* turned out to be an immature *Dryopteris expansa* when examined by Fred Rumsey at the NHM.



photo: A.J. Evans

***Phegopteris connectilis*, Sgurr Sgaladail, Harris**

Some of the party explored the steep slopes just below the cliffs of Sgurr Sgaladail, finding patches of *Phegopteris connectilis* and veins of *Cystopteris fragilis*. We saw *Dryopteris affinis* agg. – too inaccessible to identify, a few plants of *Asplenium trichomanes* and, in a stream cleft, *A. adiantum-nigrum*. Pat and our star of the day, Jonathan, eventually and independently found *A. viride* before we retraced our steps to the cars.

Thursday 13th – Roadside, South Harris

Bryan & Gill Smith

We began this overcast day by gathering at the A859 roadside (18/133944). Walking a short way down the road we encountered *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris cambrensis* and *D. dilatata*. However, our main goal, just up a track at 18/1322.9459, was a nice colony of what we thought was *Ophioglossum vulgatum* with, as before, plants no more than one inch tall; subsequent analysis at RBGE revealed this to be *O. azoricum*!

Party 1. Gleann Mhiabhaig, North Harris & Loch Grannda, South Harris

Bryan & Gill Smith



photo: A.J. Evans

***Asplenium adiantum-nigrum*, Gleann Mhiabhaig, Harris**

Returning to the cars, we split into two groups, with our group of six heading to Gleann Mhiabhaig (19/099062), the well known location of the North Harris Eagle Observatory. On our route along the gravelled track to the observatory we again saw *Blechnum spicant*, *Athyrium filix-femina*, *Dryopteris cambrensis* and *D. dilatata*. However, our lunch break in a derelict stone-walled enclosure gave us lots of glossy, leathery-fronded *Asplenium adiantum-nigrum* and, in the mortar of an adjacent building

wall, *A. trichomanes* subsp. *quadrivalens*. Breaking away from the main path by Loch Scourst, we headed up the slope to the rock-face base of Sròn Scourst. Additional ferns that we were rewarded with were *Hymenophyllum wilsonii*, *Phegopteris connectilis*, *Polypodium vulgare*, *Selaginella selaginoides* and, the main purpose of our climb, *Dryopteris oreades* growing in large clumps in the scree. One magnificent plant beneath a boulder (19/103097) made us think we'd found *D. × mantoniae*, so samples were taken for confirmation. Back at the car park, we noticed *Equisetum arvense*.

Not content with the ferns, golden eagles and a stag, we went to our final site of the day back on South Harris – Loch Grannda (18/178930), where Paul Smith treated us to magnificent stands of *Osmunda regalis*. Having seen most of the ferns on the island in a diminutive form, it was good to see unfurling three- to four-foot fronds of *Osmunda*.

Party 2. Losgaintir & Laxdale, South Harris

Pat Acock

In an attempt to cover more ground and to confirm some old fern records, the second group split up. Three of us explored the coastal dunes near the cemetery at Quiller (18/0686.9902), just south of Losgaintir, but the only fern found was *Equisetum × litorale* in the river and on the bank where the small stream entered the sea.

After reconvening for lunch half a mile up the coast by another cemetery (18/0670.9985), we split up again. The three who had been to Quiller went for coffee, while Roger Golding's party found the *Equisetum variegatum* that we had been asked to confirm (19/0676.0006). They also found *Athyrium filix-femina*, *Asplenium scolopendrium*, *A. adiantum-nigrum* and *A. trichomanes* subsp. *quadrivalens*.

Our party of ten was then restored, and we walked up the ravine at Laxdale 18/1079.9668. In this fairly accessible gorge we saw some ferns growing especially well, sheltered from the prevailing winds. Most notable were several very different members of the *Dryopteris* *affinis* agg., and Roger confirmed that all three species were present: *D. affinis*, *D. borrieri* and *D. cambrensis*. Climbing much higher up the gorge, we were unable to re-establish the record for pyramidal bugle (*Ajuga pyramidalis*) or to re-find *Polypodium × mantoniae* a little further down the ravine.

Friday 14th – Huisinis Peninsula & Loch na Cleabhaig, North Harris

Bruce Brown

Our final day saw 12 of us heading back into North Harris along the scenic winding road all the way to its terminus on the west coast at Huisinis, where we parked by the machair, white with daisies (09/989122). We explored onto the headland, failing to find *Ophioglossum* this time, but were rewarded with one spike of *Botrychium lunaria*, spotted by Paul Smith and a new record in this locality. Along with the attractive blue flowers of spring squill, *Selaginella* was common. We drifted down to the tide-splashed rocks, finding some *Asplenium marinum* and Scots lovage (*Ligusticum scoticum*) hiding in crevices.



photo: R. Golding

Huisinis Peninsula, Harris

Roland Ennos, Jonathan Lamb, Yvonne Golding,
Jennifer Ide, Jacqueline Christmas

Fortified by lunch and a view of a large eagle lazily passing overhead, we tackled a rising rocky path climbing north-east above the sea cliffs, home of cormorants, and got spectacular views of the headland and Scarp Island across the sound. Eventually the ascent levelled off as we contoured a boulder-strewn hillside, home of the usual suspects. Flat-pinnuled buckler ferns were discussed; we wondered if any might be *Dryopteris expansa* rather than *D. dilatata*, but I don't think we were entirely convinced. Descending to Loch na Cleabhaig, every boulder housed a ferny occupant, including *Polypodium vulgare* and occasionally *Hymenophyllum wilsonii*, and for the first time this week *Asplenium scolopendrium* became common.

More up and down work was necessary as Paul Smith used his GPS to home in on a colony of *Ophioglossum azoricum*, which had been confirmed by DNA analysis at RBG Edinburgh. We finally got there to admire and photograph them, none more than a couple of centimetres in stature, but some with spikes starting to develop sporangia. In all honesty they didn't really look different to ones we'd seen earlier, but Paul reckons that *O. azoricum* is under-recorded and is gradually providing specimens from various sites for testing. We had to retrace our steps again, so finished rather tired but well content.

Being our last evening, we all got together for dinner at the Anchorage in Leverburgh where we could gaze over the island-dotted Sound of Harris, a lovely place to end our stay. Hearty thanks were given to Paul Smith for knowledgeably guiding and enthusing us in such wonderful country, and also to Pat for organising the excursion.

Conclusion

Pat Acock

The whole excursion proved to be a most successful affair, with Paul Smith acquiring a number of new records, albeit mostly spotted by himself, and with the Society enjoying the peace and quiet of this remote part of the UK and coming to some understanding of a very different kind of vegetation type, where the ferns had to be sought out in places the sheep could not reach. We were pleased to welcome two of our newer members, Jonathan Lamb and Jacqueline Christmas, whose enthusiasm added to the camaraderie of the party. Our most sincere and grateful thanks to Paul Smith for being so willing to join us and for his diligent planning so that we were able to see the majority of the Harris ferns in some really varied habitats.

Ferns seen on Harris during Outer Hebrides Meeting, June 2013

	9th		10th		11th			12th	13th				14th			
	Horgabost - machair	Abhainn Gil an Tàilleir ravine	An Cliseam - ascent from A859	A859 - roadside ditch	Liceasto - coastal crags	Loch Stocinis to L.Glumradh Beag	Rodel - churchyard	Maodal - roadside crag	Gleann Sgaladail	A859 - old road	Gleann Mhiabhaig	Loch Grannda	Losgaintir - machair	Laxdale - gorge	Huisinis - machair	Path to Loch na Cleabhaig
Asplenium adiantum-nigrum					+		+	+	+		+	+			+	+
A. marinum					+										+	
A. ruta-muraria							+	+								
A. scolopendrium									+			+				+
A. trichomanes subsp. quadrivalens		+		+	+		+	+	+		+	+				
A. trichomanes subsp. trichomanes		?														
A. viride									+							
Athyrium filix-femina		+	+		+	+	+		+	+	+	+			+	

	9th		10th		11th				12th	13th					14th	
	Horgabost - machair	Abhainn Gil an Tàilleir ravine	An Cliseam - ascent from A859	A859 - roadside ditch	Liceasto - coastal crags	Loch Stocinis to L. Glumradh Beag	Rodel - churchyard	Maodal - roadside crag	Gleann Sgaladail	A859 - old road	Gleann Mhiabhaig	Loch Grannda	Losgaintir - machair	Laxdale - gorge	Huisinis - machair	Path to Loch na Cleabhaig
Blechnum spicant		+	+	+	+	+		+	+	+	+			+	+	+
Botrychium lunaria															+	
Cryptogramma crispa			+													
Cystopteris fragilis									+							
Diphasiastrum alpinum			+													
Dryopteris aemula					+	+			+						+	+
D. affinis agg.			+						+							
D. affinis													+			
D. × ambroseae			?													
D. borrieri					+	+		+					+			+
D. cambrensis		+			+					+	+		+			
D. dilatata		+	+		+	+			+	+	+				+	+
D. expansa			+						+							?
D. filix-mas					+											
D. × mantoniae											?					
D. oreades											+					
Equisetum arvense	+					+					+					
E. fluviatile	+								+							
E. × litorale	+			+								+				
E. palustre									+							
E. variegatum	+											+				
Huperzia selago subsp. arctica			+						+							
H. selago subsp. selago		+	+						+							+
Hymenophyllum wilsonii			+		+				+		+					+
Isoetes echinospora						+										
I. lacustris						+			+							
Ophioglossum azoricum										+						+
O. vulgatum	+															
Oreopteris limbosperma		+	+		+	+			+		+					+
Osmunda regalis						+						+				
Phegopteris connectilis		+	+						+		+					
Polypodium vulgare		+			+				+		+					+
Pteridium aquilinum					+							+				
Selaginella selaginoides	+	+	+								+				+	+

MARKET RASEN, LINCOLNSHIRE – 27-28 July **Brian Dockerill (Saturday)**
& Paul Ripley (Sunday)

Twenty-one BPS members and friends met our leader for the weekend, Neil Timm, north-west of Market Rasen at the entrance to Osgodby Wood (53/094925). We were very pleased to see amongst our number six American visitors to the UK from the Hardy Fern Foundation. Osgodby Wood (Forestry Commission) is part old woodland, part pre-war plantation and part post-1950 plantation, and the fern flora is largely typical of woodland on acid soils in the Market Rasen area to the west of The Wolds.

Equisetum arvense was noted around the parking area and we were soon walking into the woodland between tall stands of *Pteridium aquilinum*. Also along the pathway were seen *Dryopteris filix-mas*, one large *D. borrieri*, and *D. dilatata*, which was to become a common fern of the meeting, seen at most of the sites we visited, often in quantity. Turning left at the first major junction, we soon found in a path-side ditch the first of the uncommon ferns of the area, *Oreopteris limbosperma*. A short way further on, beside an area clear felled some two years ago, and again in a ditch, this time with prominent iron staining, we saw the second of the ferns that we sought, *Blechnum spicant*. After some backtracking we moved on to the site of wartime airfield buildings where, possibly assisted by the lime in the mortar, we saw the only plant of *Polystichum setiferum* known in the wood, along with several *Asplenium scolopendrium*. As the buildings had been demolished in the 1950s, it was clear that these ferns had colonised the site since that date. Nearby were found a number of plants of *Athyrium filix-femina* and more *Dryopteris borrieri*.

Leaving the wood, we went for our lunch in Nettleton, only stopping to admire, at 53/118947, an extensive stand of *Equisetum telmateia*, on some stems of which were seen terminal cones.

After lunch, and a visit to the nearby alpine plant nursery, Pottertons, we walked into Nettleton Woods (54/088002). The path was lined with *Dryopteris dilatata* and *Pteridium aquilinum*, both in abundance, plus a few *Dryopteris filix-mas* and *Athyrium filix-femina*. Also seen was *Dryopteris carthusiana* but a search for the hybrid *D. × deweveri* was unsuccessful. Further on in a wet ditch we found more *D. filix-mas* and *Athyrium filix-femina* as well as our first *Dryopteris borrieri* in this wood. We were then taken to the boundary of the wood where, growing on the bank of a dry ditch and former hedge line we saw a widespread colony of *Polypodium vulgare* (53/087993).



photo: R. Steffen

Pat Riehl, Lindsey Holleworth, Wim Burnett & Alison Paul make their way through a sea of bracken in Nettleton Woods, Lincs.

Our final visit of the day was to the village of Tealby, in the Wolds, where we firstly found *Asplenium trichomanes* subsp. *quadrivalens* and *A. ruta-muraria* growing on an old wall. We were told that the village had been the site of a number of paper-mills that specialised in the paper used to wrap sugar, this being dyed blue using locally grown woad. The former millrace of one such had many plants of *A. scolopendrium* growing lushly in the moist atmosphere even after the recent long dry spell. This concluded a fascinating series of visits to both ferny woodland and some specialised micro-habitats.

On Sunday morning our American visitors were already there when the rest of the party met at Neil Timm's fern nursery in Binbrook (53/211941). Recent rain had freshened things nicely, and Neil's imaginatively landscaped garden, in an unpromising location on the exposed and chalky Lincolnshire Wolds, was at its best. There are some fern beds, but most ferns are presented in combination with herbaceous perennials that set off the situation of



photo: A.M. Paul

Neil Timm explains his propagation methods to Paul Ripley and the rest of the group

the garden to maximum effect. I was particularly impressed by a stunning *Dryopteris affinis* variety, a huge plant with dark, down-flexing pinnae, and by the range of species grown to good effect. Most members availed themselves of the opportunity to purchase some very well grown and reasonably priced ferns, and Neil also demonstrated his clearly successful propagation technique. Neil's parents had generously given their time to help with our visit and to provide us with tea and coffee, and we were most grateful to Neil and his family and friends for such an entertaining visit.

Our American friends left us at this point, but not before Naud Burnett kindly left us with a selection of small 'plugs' of (mainly) North American ferns from his own nursery.

Just before lunch, we made a stop east of Market Rasen at Willingham Woods to see a large colony of probable *Polypodium × mantoniae* (later confirmed by Bruce Brown) at 53/129902. A short detour into the wood itself yielded the only *Dryopteris affinis* we saw on this weekend, together with the ubiquitous *D. dilatata* and *Pteridium aquilinum*.

After lunch at the excellent Sunnyside Up farm shop, we drove the short distance to Linwood Warren Nature Reserve (53/134877), managed by the Lincolnshire Wildlife Trust. Here we were joined by one of the volunteer wardens, Jackie Freeman, who accompanied us through the reserve. It comprises mainly lowland heath, but also has some woodland and wetter areas. *Dryopteris dilatata* was of course common, but also *D. carthusiana*. The hybrid *D. × deweveri* has been confirmed here, but none of the plants we saw justified such a diagnosis. On stream/ditch banks we found *D. filix-mas*, *D. borrieri*, *Blechnum spicant* and *Athyrium filix-femina*, the latter surprisingly uncommon. *Pteridium aquilinum* was of course abundant, but by a pond margin we again found *Blechnum spicant* and some very well grown plants of *Oreopteris limbosperma*, which is rare in Lincolnshire.

Timed to perfection, just before rain arrived the meeting ended with thanks being given to Neil for his thorough preparation and leading of a most enjoyable meeting.

CORNWALL; GARDEN & FERN HUNTING MEETING – 27-30 September (Leader: Martin Rickard)

Introduction

Martin Rickard

This meeting was largely organised to allow BPS members to visit two of the best fern gardens in Britain: Tremenheere Sculpture Garden, which is open to the public, and Tregye Wood, which is not. I am particularly grateful to Fiona and John Lanyon who own Tregye for making special arrangements so that all of our group could visit this fabulous garden. With very narrow paths, a misplaced foot could easily do serious damage.

To make the long journey worthwhile, the meeting was extended from a usual 'weekend meeting' to a long weekend over four days. Fifty percent of the time was spent exploring for wild ferns and fifty percent in ferny gardens. In total, 40 members attended full- or part-time. Most were booked in to the County Hotel in Truro, where many of us gathered for a meal in the evenings.

Friday 27th – Kennall Vale Local Nature Reserve (10/753375), Ponsanooth, 6 miles SW of Truro

Peter Tindley

We met up at the entrance to the reserve with our leaders for the morning, Will Wagstaff of the Cornwall Wildlife Trust and Ian Bennallick. The reserve is a deep valley in which there are old granite quarry workings and remnants of old decaying gunpowder mill structures.

Ian provided us with a list of ferns found in the Kennall Vale area, some recorded recently, others not seen for many years. To the left were numerous *Polystichum setiferum*. A huddle soon formed round a *Dryopteris affinis* s.l. Further along, in a boggy area, *Polypodium interjectum* was artistically growing on a rock



photo: A.M. Paul

Briefing outside Kennall Vale LNR

Ian Bennallick, Martin Rickard, Andy Buchan,
Will Wagstaff, Matt Stribley

and soon *Asplenium trichomanes* subsp. *quadrivalens* was spotted. Beside a nearby worked-out quarry filled with water, an area of totally inaccessible scree was covered with *Dryopteris affinis*; this was also recorded as s.l.! Both *D. affinis* s.s. and *D. borrieri* were eventually recorded in the wood. It was now necessary for us to cross the river towards the ruins of a mill as a supervised group, since the bridge and path were potentially hazardous and renovations were in progress. Above the mill we followed a path along the course of an old leat. Here, on a vertical rock-face covered with moss, I spotted a lone sporeling of *Osmunda regalis*, with no sign of a mature specimen nearby. At the end of the leat was a steep sloping rock with a good population of *Hymenophyllum tunbrigense*. At first glance the fronds all looked small due to its open position, but next to it were some areas with larger fronds protected by brambles. Some more energetic members ventured higher up and found a few splendid plants of *Dryopteris aemula*, not recorded for the reserve since 1909. Matt Stribley located *Trichomanes speciosum* gametophytes under a rock overhang. Other ferns found were *Polypodium vulgare*, *Asplenium scolopendrium*, *Athyrium filix-femina*,

Dryopteris dilatata, *Blechnum spicant* and *Pteridium aquilinum*, but no *Dryopteris filix-mas*. Many thanks to Will and Ian for coping with such a crowd.

Friday 27th – Penjerrick Garden (10/781309), 2 miles SW of Falmouth Peter Tindley

After lunch we were welcomed at Penjerrick by Dr Chris Page, who introduced us to the garden's owner, Mrs Rachel Morin. Penjerrick was owned by the Fox family from the eighteenth century; in 1990 it was left to the National Trust by Janet Fox. Unfortunately this bequest was rejected as the associated endowment was insufficient, and it passed to her daughter, Rachel Morin.



photo: M.H. Rickard

Penjerrick Garden, near Falmouth

Matt Busby & Tim Pyner dwarfed by huge plants of *Blechnum chilense*

A public lane separates the upper garden from the valley garden. In the lane we found *Cystopteris diaphana* growing in the wall by one of the gates, but no *C. fragilis*. Surely records for *C. fragilis* from here can be discounted as the habitat is wrong. Onward into the next section of garden. *Osmunda regalis* was attempting to grow in a large clump of *Sasa palmata*; further on beside Middle Pond was an impressive plant of royal fern possibly 150 years old. Magnificent *Dicksonia antarctica* were common here, including one about 45 feet tall that Chris said may be the tallest tree fern in the world. Further down in wild areas of garden *Polystichum polyblepharum* was widely naturalised but we could find no hybrids.

One of the main features of the ten-acre garden is the large number of *Dicksonia antarctica*, some of which were the first to be introduced into Britain (1824-25) and as a result are some of the tallest in the UK. This is a garden that also has some notable trees, including a champion *Podocarpus salignus*. Chris pointed out a group of *Dryopteris crispifolia*, explaining that Mary Gibby had grown these from spores from the type plant in the Azores. At intervals we came across *Woodwardia radicans* and tall clumps of *Blechnum chilense*. Uncharacteristically, *Onoclea sensibilis* was struggling, smothered by surrounding vegetation.



photo: A.J. Evans

Penjerrick Garden, near Falmouth

Chris Page, Jennifer Ide, Alison Paul, Steve Munyard

Mid-afternoon, ten of us peeled off early to go to Tregye garden, leaving the rest of the group to continue to enjoy Penjerrick. On the way back, Pat Acock found some *Pteris cretica* up by the house. Many thanks to Rachel Morin for letting such a large crowd explore her garden.

Friday 27th – Tregye Wood, Carnon Downs

Peter Tindley

This is a garden that many BPS members have long wanted to visit. It is owned by John and Fiona Lanyon, who have built a splendid eco-house with a feature roof planted with *Fascicularia*. John and Fiona welcomed us by giving the background to the garden. The original owner was Edward Needham, a true plantsman who had developed the garden over 25 to 30 years, with many plants he collected in China and Taiwan. John and Fiona have begun to reinvigorate the planting and as they were also keen to build up a correct record of the existing plants, Fiona was busily noting down names supplied by some of our group.

Initially Fiona led us to the back of the house where there were many interesting ferns, most notably *Arachniodes simulans*, looking to many like a form of *Rumohra adiantiformis*. Nearby was a possible *Dryopteris sublacera*. Edging the grass was *Polystichum neolobatum*, and lastly there was a luxuriant *Blechnum magellanicum*; everything seemed luxuriant in this part of the world.

Going round to the front of the house and over the lawn, the main garden drops away to a sheltered wooded valley. At one end is a pond with a small cliff with a cave at the far end.



photo: M.H. Rickard

Tregye Wood garden, Carnon Downs

Gill & Michael Radley, Matt Stribley, Brian Dockerill & Fiona Lanyon admire *Polystichum proliferum*

From the pond a stream runs down to a lake at the other end of the garden. As we crossed the lawn we saw *Lastreopsis microsora*, almost in the grass, with *Paesia scaberula* and large groups of *Polystichum proliferum*. The route zigzagged down, and on the first corner *Lastreopsis glabella* was admired for its fine fronds. Close by were more fine-fronded ferns, *Arachniodes amabilis* and *Onychium japonicum*, and also *Vittaria flexuosa*. Next was an eye-catching *Leptolepia novae-zelandiae*, and along a bit, *Athyrium vidalii*. The path descended to a stream that flows into the top pond, but just before that was *Blechnum longicauda* from Alexander Selkirk Island, and *Peranema*

cyatheoides with its pendulous sori, next to an unidentified *Blechnum*. Rarely seen in cultivation, *Culcita macrocarpa* (European tree fern) was thriving, almost growing in the stream and set off by an artfully situated log. We were soon led back down to the pond, passing huge six-foot plus fronds of *Pteris wallichiana*. Across the pool was what looked like a *Woodwardia*; it turned out to be a magnificent *Lophosoria quadripinnata*. A path led beside the pond and below a vertical cliff just over head height. In the cliff were pockets of soil with *Stegnogramma tottoides*, *Pyrrosia lingua*, *Polystichum nepalense* and *Adiantum*

davidii, with several new naturally occurring colonies of *Trichomanes speciosum*. The highlight was, however, a luxuriant mature colony of *T. speciosum* growing half in and half out of a small cave. Fiona is trying to encourage it to spread further. Tim Pyner noted *Polyphlebium venosum* at the back of the cave (see article on this by Fred Rumsey in the 1993 *Fern Gazette* 14(5): 155-160.) There was *Microlepia marginata* at the cave entrance and a large *Blechnum novae-zelandiae* curtaining a bank. Retracing our steps past the *Lophosoria*, we followed the stream to the lower lake. Along the stream were several *Plagiogyria japonica*, a *Cornopteris decurrenti-alata* and a *Blechnum discolor*; Tim also saw *Blechnum novae-zelandiae* in several places. He identified a *Cornopteris*, possibly *C. quadripinnatifida*, as we made our way up to a quarry-like area that had *Polystichum bigemmatum* and a tall specimen of *Dicksonia squarrosa*, unusually with its crown intact. Again noted by Tim was *Plagiogyria stenoptera* with its suddenly abbreviated lower pinnae.

Finally we gathered back up at the house to thank Fiona and John for letting us see their garden, especially since there were so many of us. It was the highlight of the weekend, an exciting garden – and not just for ferns.

Postscript by Tim Pyner:

I revisited Tregye in October and spent more time identifying and confirming some of the ferns. Here are some of my conclusions:

- The large *Plagiogyria* seen in various parts of the garden is *P. pycnophylla*, not *P. japonica* as previously thought. The elongated curved aerophores at the base of the pinnae are diagnostic.
- The *Dryopsis* noted by some is *D. kawakamii*.
- A shiny pinnate *Dryopteris* by the house appears to be the true *D. atrata*.
- The small creeping *Arachniodes* seen in various places is *A. amabilis*. *Flora of China* lumps several species under this name including *A. rhomboidea* and var. *yakusimensis*. Tregye plants seem to be the latter, which is raised to species level in *Ferns of Taiwan*.
- Most of the *Lastreopsis* are *L. microsora*. There was one plant of *L. glabella* in the quarry.

Saturday 28th – Chris Page’s Garden, Gillywood Cottage, Stithians Mark Morgan

The group met in the hotel car park to finalise plans for the day. We split into two parts, one to visit Tregye garden, the other to visit Chris Page’s garden at Stithians. Halfway through the morning, the final party to visit Tregye set off, making room at Gillywood Cottage for those who had just arrived from Tregye.

Chris Page is a well-known specialist on the taxonomy, ecology and evolutionary biology of pteridophytes and conifers. After Chris’s introduction, one part of the group walked down the lane in search of aspleniums and polypodiums (the challenge was to find the hybrid between *Polypodium interjectum* and *P. vulgare*), while the other group were given a tour of the garden by Chris. The garden’s altitude is 300 feet and it receives an average of about 47 inches of rain per year. Part of it is located in a small gully that is spring-fed in winter as it is on the east ridge boundary of granite and shale rocks. We were shown *Woodwardia radicans*, which was a direct descendant of an original collection by Chris from La Palma in 1960. Alongside this was a drift of *Dryopteris sieboldii* but *Cyrtomium caryotideum* had apparently not survived the previous two winters. Native species here were *Polystichum setiferum*, *Dryopteris dilatata*, *Asplenium scolopendrium* and *Athyrium filix-femina*. Chris did not know when buying Gillywood Cottage that when Darwin returned on the Beagle he spent the night at Burncoose House, 100 yards behind the cottage (their first stop back in the UK was at Falmouth); it is thought that the next morning he visited Gillywood, then the woodsman’s cottage, with a gift of plants he had brought back, and they were accordingly planted in the woods. Chris has yet to find any of them!

The cottage itself has parts dating back to 1230 AD, and we were invited inside for a cup of tea, kindly provided by Chris's wife, Clare. It was good to meet all four authors of the book *Ferns, clubmosses, quillworts and horsetails of Cornwall and the Isles of Scilly*: Rose Murphy, Chris Page, Rosemary Parslow and Ian Bennallick, and a book-signing session ensued to take advantage of this rare opportunity. Chris summarised the geological history of Cornwall and talked about his work here. He praised the generation of Cornish botanists present and hoped there would be similar botanists in the future to examine what changes had occurred.

Saturday 28th – Tremenheere, near Penzance (10/497322)

Martin Rickard

Fairly recently opened to the public, Tremenheere has already featured twice in the *Pteridologist*, where accounts by the owner, Neil Armstrong, highlight the problems of gardening even here in Cornwall overlooking Mounts Bay. We gathered for a late lunch in the excellent on-site tearooms before heading off up the wooded valley into the garden. Here Neil has planted a wide variety of tree ferns: inevitably *Dicksonia antarctica*, but also *D. squarrosa* and *D. fibrosa*, as well as *Cyathea smithii*, *C. dealbata*, *C. australis* and *C. medullaris*. Other 'nearly tree ferns' also flourish, such as *Lophosoria quadripinnata*, *Todea barbara*, *Blechnum magellanicum*, *B. tabulare* and many more. Some of the *B. magellanicum* provoked discussion – why were the leaves deep green and glossy? In a hollow by the side of the stream Neil has established several plants of *Leptopteris hymenophylloides* and *L. superba*. These have recently been planted at Tregye but do these two wonderful crepe ferns grow out of doors anywhere else in the British Isles?

Above the fern-filled valley the garden suddenly transforms into a xeric garden! Palms, restios and other grasses and much more, including *Cheilanthes tomentosa*, luxuriate. At the top of the hill there are some fascinating structures/sculptures, explaining its informal name as Tremenheere Sculpture Garden. The camera obscura is fun and the Tewelwolow Kernow by James Turrell, a space from which to view the sky, especially at twilight, is fascinating. This is all topped off with magnificent views of St Michael's Mount, making Tremenheere my favourite of gardens open to the public.

Sunday 29th – Bosvigo House, Truro, & woodland garden south of Camborne

Pat Acock

Sunday dawned very wet. A short drive down the road opposite the hotel took us to Bosvigo House and Garden, where the owner, Wendy Perry, issued umbrellas to those in need and gave us a brief description of the garden. The house is a beautiful period property frequently used by film and TV companies. The garden, though small, was full of interesting plants and dotted around were some noteworthy fern species and cultivars, including *Dryopteris erythrosora*, *D. cycadina*, *Onychium cryptogrammoides*, *Osmundastrum cinnamomeum*, *Paesia scaberula*, *Davallia trichomanoides*, *Dennstaedtia davallioides* and *Lophosoria quadripinnata*. Among the cultivars, *Dryopteris affinis* 'Congesta Cristata' and *Athyrium filix-femina* 'Plumosum divaricatum' stood out as particularly choice. Growing in the conservatory were *Phlebodium pseudoaureum* and *Lygodium japonicum*. On the wall around the small courtyard at the back, *Onychium cryptogrammoides* had become established, along with *Adiantum aleuticum* 'Subpumilum' or maybe 'Imbricatum'. On top of the wall was a fine potted specimen of *Cheilanthes tomentosa*. Fighting for space between paving slabs and a large stone trough were *Paesia scaberula* and *Blechnum penna-marina*. A highlight in a nearby border was *Cyrtomium tukusicola* – recently introduced from China by John Fielding. This must be the most handsome member of the genus, even out-shining *C. macrophylla*, to which it is closely related.

We sheltered in the house over coffee, before moving on to a wood near Kellivose, south of Camborne (10/647385), where we met the owner, Sheila Tiffin. Native ferns flourished here and grew to statuesque proportions. Sheila had planted exotic ferns such as *Dicksonia antarctica*, *D. fibrosa*, *Blechnum cycadifolium*, *Cyathea australis*, *Blechnum discolor* and *Dryopteris sieboldii*. *Woodwardia radicans* and *Pteris umbrosa* had established and grown quite large but some plants had succumbed to the previous two bad winters.

Sunday 29th – Carn Galver, SW of St Ives

Pat Acock

Moving on to the far west coast of Cornwall, the rain was once again persistent and all of us found our way to Rosemergy tea rooms. After welcome warmth and sustenance we walked along the lane to see a lovely colony of *Asplenium obovatum* subsp. *lanceolatum* growing with *A. adiantum-nigrum* (10/418363) but could find no hybrids. Nearby were a few mature *Dryopteris aemula*. *Asplenium marinum* was abundant on mine workings where we parked the cars. Most members now opted to look for further *A. obovatum* subsp. *lanceolatum* and/or go back to Truro to dry out, but a party of six wanted to find *Hymenophyllum tunbrigense* and *H. wilsonii*. The filmy fern hunters had to face a gruelling traverse through waist-high closely entangled gorse, brambles and heather, with hidden rocks and potholes. Eventually we reached the equally treacherous rocks of Carn Galver and were rewarded by shortly finding both hymenophyllums among the boulders. It was virtually dark before all the party returned to the cars, tired, but pleased with themselves even if a little damp had percolated through even the most advanced wet weather gear. Some of us had to dry out the contents of our wallets!



photo: A.M. Paul

Paul Ripley & Alison Evans in rain at *Hymenophyllum* site on Carn Galver, SW of St Ives

Monday 30th – Park Pit (20/1970), Bodmin Moor, East Cornwall

Ian Bennallick

Five members met Ian Bennallick at Park Pit (20/1970), north of St Neot in the southern part of Bodmin Moor. Owned by South West Water (SWW), permission had been given for the visit. Park Pit is the new site, discovered in 2012, of *Lycopodiella inundata* and *Lycopodium clavatum*, both very rare in Cornwall. A description of the site and how these clubmosses were discovered is in the 2012 *BPS Bulletin* p.409. Briefly: until 2007 the site was a ‘moonscape’ of waste china clay workings, but since then it has been sculpted and has re-vegetated into an area rich in wildlife. One area that has re-vegetated naturally over many years is a ‘mica dam’. This is where mica, a by-product of the china clay mining, had settled out, and over time the level area had dried and vegetated naturally, mostly with patchy heather (*Calluna vulgaris*) and purple moor-grass (*Molinia caerulea*), with a few round-leaved sundew (*Drosera rotundifolia*). The substrate formed by the mica holds surface water readily, and open areas in between the heather appear to have kept relatively vegetation-free over the years due to periodic inundation. Since 2012 the site has been fenced off from the road, and after some negotiation of the barbed wire fence Ian led the others onto the site. We found extensive patches of *L. inundata* with many strobili, growing on the flat and waterlogged ground at 20/198703 and 20/199703. Martin Rickard said that he hadn’t seen it as abundant at other British sites as at Park Pit. We also found the two patches of *Lycopodium clavatum*, also with strobili, at 20/1993.7034 and 20/1987.7028.

Around the edge of the mica dam we looked at several plants of *Equisetum fluviatile*, *Dryopteris carthusiana*, *Osmunda regalis* and *Oreopteris limbosperma*, all growing in or on the edge of a wet area dominated by sphagnum. Also seen were some fine *Blechnum spicant*, *Dryopteris affinis* (and possibly *D. cambrensis*), *D. dilatata*, *D. filix-mas* and *Polypodium vulgare*.

LECTURE MEETINGS AND DAY VISITS

AGM & SPRING MEETING, ROYAL BOTANIC GARDEN EDINBURGH – Saturday 6 April

Roger Golding

The Royal Botanic Garden Edinburgh is always a pleasurable and exciting place to visit, with one of the best fern collections around. I was particularly looking forward to this meeting, though, because of the subject of the morning presentation.

Andy Ensoll, Senior Horticulturist at the garden, gave a talk on 'Ferns of Texas and their propagation'. This focused on the West Texas Xerophytic Ferns Expedition, from 27th July to 16th August 2011. The main area of the visit was Brewster County, in the south-west of Texas bordering on Mexico. It lies within the greater Chihuahua Desert region, which straddles the USA and Mexico. Andy and Gunnar Ovstebo were based in Alpine, the capital of Brewster, and were joined by botanists Patricia Manning from Sul Ross State University in Alpine and Michael Eason from the Lady Bird Johnson Wildflower Center in Austin. Their visit coincided with the driest year on record in that area, with critical fire weather conditions; the trip was punctuated by dry thunderstorms and lightning storms.

Andy showed images of many of the ferns looking surprisingly good, despite the dry conditions. These included several species of typical xeric genera: *Cheilanthes*, *Pellaea*, *Notholaena* and *Astrolepis* (the last named for the star-shaped scales on their pinnae) as well as *Bommeria hispida* and *Anemia mexicana*. *Adiantum capillus-veneris* was also seen, along with *Equisetum laevigatum*, *Thelypteris ovata* and various species of *Selaginella* (*S. underwoodii*, *S. mutica*, *S. arizonica*, *S. peruviana*, and *S. lepidophylla* – the well-known 'Resurrection Plant').

In all, the expedition came back with 76 spore collections and 21 living plants, representing 36 species. Andy described how he and Gunnar grew the ferns on, back in Edinburgh. Spores were grown in a mix of sieved bark, sphagnum moss peat and John Innes No. 1, with a small amount of a commercial pre-planter fertiliser to help stimulate root growth, under artificial light for 12 hours a day at 20° Celsius. For planting out in the xeric house a typical mixture comprised 50% bark compost, 25% John Innes No. 1, plus a mixture of pumice, perlite and grit.

Andy then took us to the Arid House to view the desert ferns in situ, spending a few minutes on the way examining a covered border also planted with xeric ferns. What seemed remarkable was how the ferns were flourishing here despite exposure to cold Scottish winter conditions – the corrugated roof protects them from becoming waterlogged in winter. Here, species such as *Cheilanthes fendleri* from south-western USA and *C. niphobola* from China were thriving among rocks in a mixture that appeared to be almost pure coarse sand.

In the Arid House we were fascinated to see the sheer quantity and variety of ferns growing among the cacti, euphorbias and other desert plants. Plants from the Texas expedition joined xeric ferns from other parts of the world to form what must surely be the best display in a public collection in the UK. Beautiful silvery-grey masses of *Astrolepis windhamii* and *A. integerrima*, *Bommeria hispida*, *Cheilanthes myriophylla* and *C. mollis* (from South America), and the delicate blue-grey fronds of *Argyrochosma microphylla* – these were just a few that



photo: R. Golding

Bommeria hispida at RBGE

caught my eye and that I managed to both photograph and make a note of the names! I hope the success of this project will encourage other botanic gardens to include xeric ferns in their desert displays.

After lunch, Mary Gibby gave her presidential address on ferns and conservation (reported separately).

Following on from the AGM and tea break was the eagerly awaited auction of the remarkable collection of fern books donated to the Society by the late Graham Ackers. Frank Katzer did a fantastic job of organising the sale, including cataloguing all the books (of which there were over 350) and setting reserve prices. The sale was organised so that many of the books were sold by e-mail auction, with those attracting most expressions of interest being sold at the live auction on



photo: M.H. Rickard

AGM at RBGE

Alison Paul, Yvonne Golding, Mary Gibby & Gill Smith

the day. Even for those too poverty-stricken to participate in the bidding, the sale was entertaining to watch. In the event the bidding was quite fierce for some of the rarer items, with a top price of £2,600 being paid for a copy of Thomas Moore's *The Ferns of Great Britain and Ireland* of 1855, the first nature-printed book published in Britain. In all, a total of around £17,000 was raised from the auction, and it is intended that the proceeds will be used to fund a project or major publication that will be a lasting tribute to Graham's memory.

Our thanks go to Mary Gibby, Andy Ensoll, Heather McHaffie and other members of the Scotland Regional Group for organising such an enjoyable and rewarding meeting.

Sunday 7 April

Martin Rickard

On Sunday morning the 17 members still in the vicinity gathered again at the Royal Botanic Garden Edinburgh for a tour behind the scenes led by Mary Gibby, recently retired Director of Science at RBGE. Mary started by taking us into the main working library. Very interesting but not the home of those special rare fern books we know a centre like Edinburgh is sure to house. There were still treasures to be found here, however. Pat Acock was very happy when he discovered on the spares table (i.e. free to a good home) a pile of the journal *Taxon*! Looked very dry to me!

Mary had been saving the best until last. She eventually showed us the **real** treasures. Of special note was a copy of *Baildon's nature-printed ferns*. I only knew of four copies, so now this one makes five. The *Ferns of Moffat* was also special. A book of real specimens mounted opposite a page of text. I suspect this is not as rare as the *Baildon* but it is certainly a very scarce book. Mary had these books, and many others, out on display so that we could inspect them. Thin rubber gloves were provided so that members could turn the pages if they were careful.

Moving on, Mary gave a quick guide to the herbarium. Pat Acock asked if there were any specimens of the extinct Ascension Island endemic, *Dryopteris ascensionis*. A single herbarium sheet was found, which Mary put aside to be databased and scanned using the equipment that she showed us. All the type specimens are being scanned as part of a global project and the images are available on the RBGE website and at <http://plants.jstor.org/>. I must admit that I had peeled off to examine the herbarium specimens of polypodiums. The famous mid-Victorian fern man P. Neill Fraser lived in Edinburgh and at some point his herbarium was sold to RBGE. These old herbaria are a priceless aid for identifying old

cultivars. Of special note were named fronds of *P. vulgare (australe)* 'Cristatum Morleyi', *P. vulgare (australe)* 'Deltoideum' – looking very like 'Pulcherrimum Addison', and *P. vulgare (australe)* 'Paigntonense' – a really ugly cultivar that I have never seen illustrated; at least I now know I could not recommend it to be widely grown!

After thanking Mary for a fascinating morning, most of the party moved on into the garden to have lunch and enjoy seeing more ferns!

AUTUMN MEETING – CULTIVATION OF FERNS AND CLUBMOSES, RHS GARDEN HARLOW CARR – 9 November

Jennifer Ide

Fifty-one participants met at the Royal Horticultural Society Garden Harlow Carr, Harrogate, for an instructive and enjoyable day of lectures and lecture-demonstrations, mostly by BPS members, on the cultivation of the rarer and the more difficult-to-grow pteridophytes. Matt Busby, chairman for the day, welcomed everyone, especially the Harlow Carr staff and local members of the RHS and Plant Heritage who had accepted our invitation to the meeting.

Opening the programme, Neil Timm described how he, as a professional fern grower, retailer and landscape gardener, propagates his ferns from spores. His talk was punctuated with tips for the amateur grower, a feature of all the talks by the professional speakers. Neil recommended sowing spores in trays larger than the usual smaller containers used by amateurs, the excess sporelings and substrate being recycled by composting. At least one frustrated plant labeller will be trying Neil's recommendation of the 'Pentel' fine tip felt pen as the best to use for labels, as it neither fades nor rubs off.

Julian Reed, leader of the newly formed Fern Cultivar Special Interest Group, continued the theme of propagation, with very helpful explanative demonstrations of the various ways in which fern cultivars may be vegetatively propagated, of particular value as a good number are either sterile or have reduced capacity for sexual reproduction. Many participants were aware of the technique of propagating 'scollies' from the bases of their fronds, but almost no-one had realised that the source of the bases was the remains of the previous year's fronds, looking for all the world as though they were dead, lurking amongst bases of the current season's fronds. An ingenious idea was the use of guttering for growing bulbils borne on the long fronds of *Ampelopteris prolifera* (do not cut off the fronds!), and of weighing down the fronds with a sheet of glass rather than pegging them down, as pegs rust or decay!

The morning session ended with a talk on the cultivation of xeric pteridophytes by Gunnar Ovstebo, a fern horticulturalist at the Royal Botanic Garden Edinburgh. He began with a review of the desert species of *Cheilanthes* and *Selaginella*, and the features of their habitats – canyons, deserts and high altitude mountains, before describing the propagation and cultivation methods he has developed at Edinburgh. Selaginellas are easily propagated from small cuttings from fresh shoot tips, even from rehydrated 'resurrection' species, and *Cheilanthes* propagate very easily from spores. Xeric plants have long root systems so they are better planted in horticultural sand in approximately six-inch-deep (fifteen-centimetre) troughs, which also provide more stable compost than pots. They are best placed on an open, west-facing bench with a lean-to style roofing cover (e.g. twin-wall ten-millimetre polycarbonate sheet) to protect the plants from the worst radiation frost. They do best with a twelve-hour day. Gunnar recommended the chapter on cultivating xeric ferns in B.J. Hoshizaki and R.C. Moran, 2001, *Fern Grower's Manual*, Timber Press.

[See more about ferns of dry habitats at RBGE: <http://stories.rbge.org.uk/archives/3713>
Join the desert ferns group on Flickr: www.flickr.com/groups/1512371@N24/]

After lunch, Gunnar's colleague, Andy Ensoll, described the propagation and cultivation of some of the more unusual and more difficult-to-cultivate pteridophytes: filmy ferns, *Ophioglossum* and *Psilotum* species, lycopods and mesic selaginellas. He stressed that sourcing is a major problem for would-be growers, as a number of species in this category are protected and cannot be sourced from the wild, even as spores; some species even require a

licence. The large number of mesic selaginellas, 6-700 species worldwide, all require warm conditions and good air circulation. Epiphytic lycopods are more readily available, but terrestrial ones are more difficult to source legally. Both lycopods and selaginellas require an open, free-draining substrate with a slow-release fertiliser such as 'Osmacote'. Filmy ferns provide an opportunity for imaginative and even ambitious presentation in terrariums, fern pits and grottoes, their main requirements being humid air and a moist substrate. A simpler idea is to grow them in a concrete base set in gravel and sunk a little way into the ground to provide protection from frost. Spores collected and retained on the frond will remain viable for a long time. Other tips included using a rich soil for ophioglossums, and an epiphytic mix for *Psilotum* species. For plants requiring high humidity it is better to apply feed direct to the substrate rather than spraying the foliage, to prevent algal growth on the fronds/branches.

In the first of two short sessions on developing a collection, Jude Lawton, chairman of her local Plant Heritage group, concentrated on the work of Plant Heritage (formerly the NCCPG) and its role in encouraging the development of National Collections of plants in cultivation. Although the regulations for holding a collection can be enough to put one off, a new scheme has recently been introduced alongside the original one, which encourages collections of a few plants from a group, rather than comprehensive ones.

Roger Golding discussed the value of keeping records and the kind of information that might be kept. He explained that there were two types of record: the plant label and the computer record or hard copy. He encouraged visiting and contributing to the BPS Pteridowiki website (www.fernforum.net/mediawiki), which aims to build up a record of the ferns growing in members' gardens, provide descriptions of cultivars, and develop a directory of the hardiness of cultivated ferns in Britain.

Relieving Matt Busby so that he could join the panel of speakers, Martin Rickard chaired the question and answer forum after tea. A variety of topics were discussed, including:

- the necessity and extent of mycorrhiza in ferns: apart from the fact that mycorrhizae are known in the gametophytes of lycopods, it had to be admitted that no-one at the meeting really knew the answer. The *Bulletin* editor has drawn the attention of the writer to an interesting and fascinating review of mycorrhizae in pteridophytes by Klaus Mehltreter in chapter 7 of *Fern Ecology* (2010. ed. K. Mehltreter, L.R. Walker & J.M. Sharpe), which the writer highly recommends. Mycorrhizae are symbiotic associations between fungi and plant roots and two types have been demonstrated in ferns. They increase water and nutrient absorption, especially of nitrogen and phosphorus, and increase the drought tolerance of their host plants;
- the collapse of polypod colonies by weevil attack, its identification by the collapse of the fern frond at stipe level, and the use of the proprietary product 'Provado' to cure the problem;
- retaining dead fronds of xeric ferns during the winter months – they contain usable nutrients and also provide protection for the newly forming fronds – and their removal in summer;
- the requirement for and the contents of a PRINTED, dated catalogue for the names of fern cultivars, deposited in a minimum of five libraries: on-line was not sufficient;

Finally, John Grimshaw, the arboretum curator at Castle Howard, Yorkshire, requested the donation of ferns to grow in the arboretum. (See www.castlehoward.co.uk/contact-us.html if you can help.)

Although it was unfortunate that the weather proved inhospitable, reducing the opportunities for participants to look around the gardens, the meeting was otherwise judged a success. Matt Busby drew it to a close after thanking all who had contributed to a most enjoyable and informative meeting, especially the speakers and others who had travelled a considerable distance to be present.

REGIONAL MEETINGS

BOTANICAL CORNWALL GROUP

Ian Bennallick & Matt Sibley

Most trips for 2013 had a general recording aim, but those days with particular fern interest are reported below.

Padstow (10/97), West Cornwall – Friday 28 December 2012

Despite a grey cloudy day, seven people met at the main car park above Padstow, one of Cornwall's more visited towns, especially in the summer. The main reason for this mid-winter walk around the town and coastal area was to see early flowers and to update under-recorded squares (10/9174, 9175, 9274 and 9275). It was also a chance to escape those claustrophobic days between Christmas and New Year. Despite the conditions, the town was busy, but we recorded mostly along the Camel estuary edge and explored a small valley inland. We saw eleven species of fern including *Dryopteris filix-mas* and *Polystichum setiferum*, both common and typical in the lower parts of Cornwall's valleys. *Asplenium scolopendrium*, *A. adiantum-nigrum* and *A. trichomanes* subsp. *quadrivalens* were all widespread and common on the various walls and stonework of the town and port. These habitats are also good places for *Polypodium cambricum*, which was not infrequent. We also found *Asplenium ruta-muraria* on a wall at 10/9816.7561, surprisingly rare in the town, and only recorded here since 2012. On the cliff just north of the town was a fine display of *A. marinum* at 10/9221.7597. We didn't get a chance to check to see if the *Adiantum capillus-veneris* was still on the trackside face of the old railway platform at 10/9208.7513 (first seen here in 1962 by Len Margetts), but Colin French managed to find it on a later visit in April 2013.

Upton & Phillack Towans (10/53 & 10/54), north of Hayle – Sunday 12 May

The cold spring weather extended well into May and thirteen members met for our general botanical walk over large areas of sand-dunes in 10/5639, 5739, 5744 and 5840 on Upton and Phillack Towans.



photo: I.J. Bennallick

Botanical Cornwall Group members looking at *Ophioglossum vulgatum*, Phillack Towans, Cornwall

The dunes are almost devoid of ferns but it was a chance to check if the small colony of *Ophioglossum vulgatum* was still present on Phillack Towans. A close search beside the path in damp sand-dune turf at 10/5665.3905 soon found us spotting *Ophioglossum* plants and once we got our eye in we counted many



photo: J. Swift

Ophioglossum vulgatum, Phillack Towans, Cornwall

fronds still emerging. First recorded here in 1915 by E. Rees, it has since been monitored at various times, with the largest number of plants counted being over 100. On this occasion we saw several dozen. The other interesting pteridophyte on the dunes is *Equisetum variegatum*, found only at one other site in Cornwall; we found a few straggling plants growing at 10/5720.3987 in an open dune-slack (which can become inundated by water draining the adjacent old explosives works) amongst some thin and stunted *E. arvense* and *E. palustre*.

Dannonchapel area (20/08), south of Tintagel – Saturday 18 May

May finally became more spring-like and in warm sunshine eight members met along the St Endellion to Delabole road to walk along the footpaths into 20/0382, 0482, 0582, 0483 and 0383 to update records in coastal squares. The footpath took us to the National Trust owned site of Dannonchapel, a ruined farm, where on the old slate walls *Asplenium ruta-muraria* (in a new site) was particularly luxuriant with *A. adiantum-nigrum* and *A. scolopendrium*. We then walked out onto the cliff-tops, which offered fantastic views south to Port Isaac, Lundy Bay and the Rumps, and north to Tintagel, the Atlantic Ocean churning below us. Walking down many steps into the steep-sided and deep Tregragon Valley took a long time!

The valley has been well recorded in the past, notably during monitoring of the vegetation for the (unsuccessful) re-introduction of the large blue butterfly here in its last British native site; it was extinct by 1973. Many of the coastal and valley slopes are bracken- (*Pteridium aquilinum*) covered, with *Asplenium marinum* scattered on the cliffs and along rocks beside the stream at 20/0342.8282. In the bottom of the sheltered stream valley further inland (20/0376.8277) we found some newly emerging fronds of *Osmunda regalis*, and close by the stream some *Equisetum* × *litorale* (20/0355.8281), which was new to 20/08. *E. arvense* was present but not the other parent (*E. fluviatile*), the nearest site being a few kilometres to the south at Port Gaverne (20/0080). Also along the stream were abundant *Athyrium filix-femina*, *Dryopteris affinis*, *D. dilatata*, *D. filix-mas* and *Polystichum setiferum*. Further up the valley in a wooded area south of Tregragon, Ian Bennallick felt his *Dryopteris aemula* ‘feelers’ twitch and sure enough found one plant on a wooded bank with the typical associate, *Blechnum spicant*. In Cornwall *D. aemula* is often associated with the Nationally Scarce flowering plant Cornish moneywort (*Sibthorpia europaea*) and after diligent searching a small amount was found trailing over fallen logs in wet woodland close by. We saw eighteen species of pteridophytes during the walk.

Lizard (10/61 & 10/71), West Cornwall – Saturday 25 May

This was advertised unashamedly as a ‘rare plant twitch’! Many rare British natives (some confined to the Lizard) can be seen in spring on a circular walk from Lizard Village 10/7012 to below Lizard Lighthouse 10/7011, and around the west coast 10/6911 via Caerthillian Cove 10/6912 to Kynance Cove 10/6913 and 6813 and back to Lizard Village. One of the species on the list was the land



photo: I.J. Bennallick

Botanical Cornwall Group members at *Isoetes histrix* site, Holestrow, Lizard, Cornwall

quillwort, *Isoetes histrix*, the Lizard peninsula having the only mainland British sites. It can be found from as early as late October, through the winter until May or even June. As summer months arrive the plants die back and the leaves turn from green to bronze to yellow, which makes it easier to pick them out amongst similarly small and narrow-leaved rosette plants. This was the case at Carn Caerthillian at 10/6948.1268, where we found one yellowing plant in short turf on a south-facing slope, an area where this species appears to have declined drastically since a thorough survey of population size in 1982 (Frost *et al.*, 1982). But even in late May we saw some green and luxuriant *I. histrix* plants, notably at Holestrow slope at 10/6960.1287, where hundreds of plants were growing in a very damp area at the base of a rock outcrop area with native chives, *Allium schoenoprasum*. Again there were hundreds of plants at 10/6944.1295 and 10/6941.1296, not far away in similarly damp areas, and even on the drier cliff-top above Kynance Cove 10/6874.1321 west of the car park we saw at least ten plants.

Over the last three years Ian Bennallick and David Pearman have undertaken many surveys searching for *Isoetes histrix* at all the known sites on the Lizard, and provisional findings are that although it is still in many of the sites known in 1982, it appears to be present in far fewer numbers (about 1,000 plants) at present than in 1982 (when the overall Lizard *I. histrix* population was around 100,000 plants). Further research is underway to explain this apparent decline but the variability of the climate since 1982 causing more fluctuating seasonal changes of water availability at *I. histrix* sites (causing sites to become too droughted at the 'wrong' times of year) could be a cause.



photo: I.J. Bennallick

***Isoetes histrix*, Holestrow, Lizard,
Cornwall**

Reference: Frost, L.C., Hughes, M.G.B., Nichols, C. & Lawman, J.M. (1982) A total population estimate of the land quillwort (*Isoetes histrix*) at the Lizard District and recommendations for its conservation. *University of Bristol Lizard Project; Report No. 4*. Bristol, University of Bristol.

Millbrook (20/45), south of Saltash, East Cornwall – Sunday 15 September

Despite heavy rain and gales being forecast, five members met at Millbrook car park with the intention of updating records in 20/4251. This area in the extreme south-east of Cornwall, sometimes known as the Rame peninsula, is very much out on a limb, with the Tamar estuary to the east and the English Channel to the west and south. There are small areas of Devonian limestone outcropping on the peninsula (the main areas of limestone are in the southern parts of Plymouth across the Tamar estuary a few kilometres to the east), meaning that the soils are more alkaline or less acid than in other parts of Cornwall. Many walls and buildings have been constructed with limestone or local slates and it is an area where *Polypodium cambricum* and *Asplenium ceterach* can often be found. Both species were seen on a wall by the car park (20/421519) with *Asplenium scolopendrium*, *A. adiantum-nigrum*, *A. trichomanes* subsp. *quadrivalens* and *A. ruta-muraria*. As at Padstow, also by the lower part of an estuary, *Polystichum setiferum* was particularly frequent. Freshwater marshy areas are few in this area but just south of the cemetery at Dadbrook, up a small stream valley, the bottom of a marshy field had a large area of *Equisetum fluviatile* (20/4250.5173). This is rare in south-east Cornwall and was last recorded in 20/45 in 1990, with this site being new. A surprise whilst recording the horsetail was finding a fantastic large yellow, black and white striped wasp spider (*Argiope bruennichi*) using the *Equisetum* to anchor a web.

EAST ANGLIA

Indoor meeting, Little Thurlow, Suffolk – 26 January

Bryan Smith

Despite the snow and poor travelling conditions, twenty-one members from the East Anglia, South-East and Manchester & North Midlands Regional Groups gathered for our regular mid-winter meeting, when Barrie Stevenson gave us an entertaining illustrated talk on New Zealand ferns. Like a few members of the audience, Barrie had explored the New Zealand fern flora and this talk gave some of the highlights from his trip there in spring 2009. He began with the North Island, and a trip up Te Aroha mountain (height 954 metres) starting from New Zealand's oldest Youth Hostel, followed by a trip along the Rob Roy Track, Wanaka, on the South Island. Typically, we saw lovely shots of cyatheas, blechnums, aspleniums, doodias, hymenophyllums and other New Zealand ferns in their natural, at times primaeval-looking, habitats. Interspersed with these were other New Zealand flora elements, including some unusual looking orchids.

Our break for refreshments gave us the opportunity to thank our host, Mary Hilton, who has made us so welcome in her home for our mid-winter meetings since 1999. This, coincidentally, was the year Jennifer Ide gave a talk on her visit to New Zealand. Sadly, but understandably, this was to be our last meeting here, so we were delighted to give Mary some thank you gifts (a Highgrove fern tray and a BPS fern mug).

After the break, Barrie continued on the South Island with a walk along the Minnehaha Trail near the Fox Glacier (a twenty-minute hike that took him three hours!) Noteworthy on this trail was the profusion of *Leptopteris superba* – the magnificent Prince of Wales Feathers fern, as well as some *Trichomanes reniforme* and other filmy ferns. Having to sort through the many photographs he took to make his presentation could not have been easy, and our thanks went to Barrie for his talks.

All in all it was another good meeting, leaving us all looking forward to the warmer weather and the opportunity to see ferns in the wild again.

Sandringham Estate, Norfolk – 1 June

Alex Prendergast

Twelve members met at the Visitor Centre at Sandringham Country Park in north-west Norfolk. The morning was spent in the woods, with the promise of visiting the gardens in the afternoon. The woodland here is over acidic sand and several of us thought it would be a bracken-dominated day. Pedunculate oak (*Quercus robur*) dominates with birch (*Betula pendula*) and rowan (*Sorbus aucuparia*), with planted Scots pine (*Pinus sylvestris*) and sweet chestnut (*Castanea sativa*) and great stands of rhododendron that draw visitors by the thousand in the flowering season.

Heading out of the car park (53/689289), we all clocked and passed by stands of *Pteridium aquilinum* without comment. A few small unhappy *Dryopteris dilatata* and *D. filix-mas* were noted at the base of trees, but Tim Pyner guided us to a nearby spring-fed pond and stream that proved quite productive. The pond had bog pondweed (*Potamogeton polygonifolius*) in the open water and *Athyrium filix-femina* at the edges as well as more *D. filix-mas* and *D. dilatata*. The pond overflowed, cascading down a slope and into a small stream; we followed its course, recording on the banks *Asplenium scolopendrium*, *Blechnum spicant* and a few plants of *Dryopteris affinis* agg. (proclaimed by Roger Golding to be *D. borrieri*). When the end of the stream petered out into dull plantation we headed north towards Dersingham Common and followed a second stream back through the woods, recording no further ferns but observing other interesting plants including bog myrtle (*Myrica gale*), blackcurrant (*Ribes nigrum*), redcurrant (*R. rubrum*) and the moss *Leucobryum glaucum*.

At lunch-time, back near the Visitor Centre we were joined by Yvonne Golding. We next headed into the gardens at Sandringham House, where the first two ferns of the afternoon were noted on the Carstone boundary wall next to the ticket office: a small *Dryopteris filix-mas* and



photo: B.D. Smith

Sandringham Estate, Norfolk

Bryan Smith, Alex Prendergast, Neil Dickinson, Anna Lincoln, Barrie Stevenson, Julie Reid, Michael Radley, Dick Lincoln, Tim Pyner, Yvonne Golding, Roger Golding, Gill Smith

a healthy colony of *Polypodium interjectum*. Close inspection of a section of the boundary wall next to an unlocked gate revealed a single clump of *Asplenium adiantum-nigrum*.

Cultivated ferns seen around the garden included *Dryopteris affinis* 'The King', *Matteuccia struthiopteris* and *Polystichum setiferum* Plumosum Group. Large *Osmunda regalis* flanking the lake were interplanted with *Athyrium filix-femina* that were showing a remarkable degree of variation in colouration and growth rate: some with red rachis, others with green, some fully expanded, others still as croziers, leading to speculation that they had originated here as a planted collection. The Pulhamite rock garden at the head of the lake provided us with a few shoots of *Equisetum arvense*, *Polystichum setiferum* Cristatum Group, *Polystichum setiferum* (wild form), and *P. munitum* with a small sporeling nearby. Other garden plants widely admired included *Magnolia wilsonii*, *M. obovata*, *Azara serrata* and *Iris germanica* 'Black Swan'.

Hatfield Forest, Essex – 21 September

John Edgington

Hatfield Forest, once a royal hunting forest, is now in the care of the National Trust. Its wood pasture and plains are not fern-rich so the aims of this joint meeting with the Essex Field Club, led by Tim Pyner and the county's BSBI Recorder, Ken Adams, were to introduce beginners to the male fern family, to find and identify scaly male ferns, and to see how many other species we could locate.

From the car park Tim led us to Elgin Coppice, where abundant *Dryopteris filix-mas* grew with scattered plants of *D. dilatata*, the latter often on rotting tree stumps. Soon we spotted our first *D. borrieri* at 52/5438.2031, giving Tim and Roger a chance to explain the characters that separate it from *D. filix-mas*. Bypassing a large stand of *Pteridium aquilinum* (the only bracken seen all day) we encountered more *D. borrieri* before finding a fine shuttlecock of *D. affinis* beside the track at 52/5436.2041, its shiny, densely scaly fronds with impressed veins making it an obviously different plant. Cessation of coppicing had left much of the ground beneath the hazel and hornbeam canopy in deep shade, which only *D. filix-mas* appeared to tolerate as the other ferns grew beside the rides or in occasional open areas.

After lunch at the Shell House by the lake under one of the huge veteran oaks that grace the Forest, we explored Gravelpit Coppice, an area of ancient woodland whose less well-

drained soils allow ferns of damper habitats to grow among bramble and nettles. In such a spot at 52/5412.1993 we found not only *Equisetum arvense* but *Athyrium filix-femina*, *Polystichum setiferum* and a possible *Dryopteris carthusiana* – single plants of each, and the last-named with the right morphology but suspiciously dark-centred scales. These ferns, especially *Athyrium*, are not common in north Essex, but later we found several more examples, notably an unmistakeable *D. carthusiana* at 52/5425.2005 with upright fronds and green colouration at the top of the rhizome. The largest *Athyrium* we found was at 52/5428.1993, its 90-centimetre fronds impressive by Essex standards. The best find of the day, though, was at 52/5422.1991 – robust shuttlecocks with dark pinnae bases and an appearance somewhat between *Dryopteris borrieri* and *D. filix-mas*, which Tim and Roger declared good candidates for their hybrid, *D. × critica*. A subsequent check of the spores of one plant showed that more than 90 per cent were abortive, a far greater proportion than is usual for *D. borrieri*, and confirmation of its hybrid nature.



photo: J. Edgington

Hatfield Forest, Essex

Roger Golding, Wendy Gowan, Barrie Stevenson, Ken Adams (EFC), Igor Koanovic, Tim Pyner, Barbara & Richard Chapman (EFC), Marion Miller (EFC), Roger Horton, Neil Dickinson, Nick Lodge, Peter Blake

We were pleased to have found nine species and a hybrid, giving us the opportunity to learn (and relearn) their features, but besides ferns we also found many fungi, which our friends from the Field Club helped identify. Perhaps most interesting were *Bulgaria inquinans* (black bulgar), *Calocera viscosa* (a jelly fungus), *Xylaria polymorpha* (dead man's fingers), *Lycoperdon pyriforme* (a puff ball) and the rather rare *Ganoderma lucidum* (shining bracket), all on rotten wood. But Ken's offer of £5 for finding *Polypodium* went unclaimed.

Indoor meeting, Oulton Broad, Suffolk – 19 October

Tim Pyner

Seventeen members and friends gathered at Oulton Broad for the autumn meeting hosted by Gill and Bryan Smith. Heavy rain set in soon after we arrived, which delayed access to the garden until late afternoon. Needless to say the garden was looking wonderful and the ferns looked fantastic. Bryan has extended the fern area with a new border and the new plantings had established very well.

After a tasty lunch provided by Gill, we settled down to talks on South Africa and on various BPS meetings that had taken place during 2013. The plant sale proved very popular this year, with a wide variety of ferns available, including many raised from spores collected on the BPS South Africa trip of 2012. Many thanks to Bryan and Gill for hosting the autumn meeting which, as ever, proved very enjoyable.

MANCHESTER AND NORTH MIDLANDS

Oxlow Rake & Conies Dale, Derbyshire – 18 May

Yvonne Golding

Derbyshire rakes are the sites of old lead mines. Oxlow Rake (43/1209.7977 to 43/1361.8090) is very exposed (altitude 380-400 metres) and consists of a series of raised spoil hillocks of short grassland. Such areas have a unique flora including orchids, lead sandwort, mountain pansy and, interestingly for us, moonwort (*Botrychium lunaria*). We first did a reconnaissance on a very cold but bright day on 12th May 2012, when I was helped by Alan Willmot, Grace Wheeldon, Trevor Taylor and Roland Ennos. After much searching of the area, we found many colonies of newly emerged moonwort. The official trip was scheduled for the following month when we expected the moonwort to be well up due to the exposed nature of the site and with no apparent sheep grazing. That survey had to be cancelled because of absolutely foul weather, so I re-scheduled for May 2013. On another freezing day, four determined pteridologists braved the weather and tried again. Although the same time of year, there was no moonwort to be seen! But this was a particularly cold spring. Maybe we will try again in May 2014 and perform an accurate survey. Certainly moonwort appearance at Oxlow Rake is weather-dependant.

After this disappointment we dropped into the shelter of nearby Conies Dale (43/123805). This is a dry dale with a limestone rocky wall down one side. Here we were delighted to see the rare spring cinquefoil, a Derbyshire speciality, together with emerging colonies of rampant green spleenwort (*Asplenium viride*), wall rue (*A. ruta-muraria*) and maidenhair spleenwort (*A. trichomanes* subsp. *quadrivalens*). We walked through the dale and planned a circular route home, but on reaching the top we were greeted by a herd of rampant bullocks, one of which meant business, so we hopped back over the



photo: Y.C. Golding

Taking shelter in Conies Dale, Derbyshire

Roland Ennos, Pamela Simpson, Henry Folkard, Paul Ruston

fence and walked back to the cars by the same route. We ditched the planned extension to see The Delf and Merlin's Cave with tea in Eyam for another day. Maybe in 2014!

NT Calke Abbey & Ticknall Limeyards Reserve, South Derbyshire – 22 June

Yvonne Golding

If you haven't visited Calke Abbey in South Derbyshire (43/367226), you are missing a treat. The National Trust describes Calke Abbey as 'the un-stately home'. The house is very eccentric and well worth a visit, as is the estate and walled garden.

The ferning began on the house walls, with plenty of *Asplenium ruta-muraria*, *A. scolopendrium*, *A. trichomanes* subsp. *quadrivalens* and *Polypodium interjectum*. On the walk through the woods up to the walled garden there were some large male ferns (*Dryopteris cambrensis*) and lady fern (*Athyrium filix-femina*). On entering the walled garden we were immediately struck by the subtropical planting (a rarity in Derbyshire) and the very fine Auricula Theatre. Here we were met by gardener Paul Simpson, who showed

us the charming lean-to greenhouse that has been planted up as a fernery. The planting consisted of a range of exotics, too numerous to list, but which included *Coniogramme japonicum* and *Woodwardia fimbriata*. Part of the walled garden is an impressive vegetable plot with lean-to glasshouses for propagation but with 'free-range' ferns *Cyrtomium falcatum* and *Pteris cretica* as well as the usual British wall species. On the other side of the south wall, the orangery contained some good subtropical shrubs, with very large *Asplenium bulbiferum* and *Nephrolepis exaltata*, plus a fancy *Nephrolepis* cultivar.



photo: Y.C. Golding

Calke Abbey Auricula Theatre

Yvonne Golding, Ann Grue, Roland Ennos, John Grue, Henry Folkard,
Paul Ruston, Alan Willmot, Ann Haskins

In the grounds of the house, staff have rediscovered a grotto, which they are developing and will be much improved once ferns start colonising, as I'm sure they will. Nearby is a rocky outcrop with the remains of an archway that in the past was clearly planted up as a fernery. Here we found several British natives and cultivars. Of particular note were both hard and soft shield fern (*Polystichum aculeatum* and *P. setiferum*) with their hybrid, *P. × bicknellii*.



photo: Y.C. Golding

Ann Haskins admires *Polystichum × bicknellii*

We then walked the mile or so north to the Nature Reserve that comprises the fifteenth-century Ticknall Limeyards, now designated as an SSSI and the most southerly site of carboniferous limestone. On the way through wood pasture we passed ditches with field and marsh horsetail (*Equisetum arvense* and *E. palustre*) and in the woods, male fern

(*Dryopteris filix-mas*) and broad buckler fern (*D. dilatata*) as well as both the shield ferns again; we searched in vain for the hybrid but it might well be there. But the real joy of Ticknall is the 4,000 spotted orchids, which had just begun to flower. What a good day!

**Black Cloughs, Longdendale, Derbyshire (44/113998) – 24 August John Grue
(Leader: John Grue)**

Longdendale is the valley that connected the old counties of Cheshire and Yorkshire. Old maps show a Cheshire ‘panhandle’ that allowed salt to be transported from the mines in Cheshire to Yorkshire without paying duties for crossing other county boundaries. Following boundary changes, the area is now in Derbyshire. Longdendale was a royal forest and supported rich woodlands, but it has been severely abused by farming clearances, reservoir, road and railway building and acid rain from the Manchester area. The whole area is recovering through the welcome reduction in acid rain and a lessening of sheep grazing, but still suffers the effects of hydrocarbon pollution from planes, and heavy metal pollution from the road traffic. There are still some interesting patches of woodland, particularly in deep cloughs that cut into the steep valley sides. The Black Cloughs (Near, Middle and Far Black Clough) cut into the north face of Bleaklow, carrying fast-flowing torrents of peaty brown water that cascade over rocks and waterfalls to meet in a craggy amphitheatre.



photo: Y.C. Golding

Black Clough

Dave Bishop, John Grue, Pamela Simpson, Chris Evans, Ann Haskins,
Ken Seal, Henry Folkard, Roland Ennos, Alison Evans

This was an exploratory visit to an area of the valley not previously surveyed by the Society with, we hoped, some chance of new records. Alan Willmot (Vice-county Recorder for Derbyshire and BPS member) had provided information on which of the ‘missing’ taxa could be found in comparable habitats nearby.

Ten of us met outside the old railway tunnel entrances. As we crossed the bridge over the Etherow (called the Mersey further downstream), progress immediately stopped as we met a group of *Dryopteris affinis* agg. growing below the track. Discussion led by Alison and Chris Evans, accompanied by some use of guidebooks, led to a decision for *D. affinis* and *D. borrieri*. We enjoyed inculcating our new member and there were some very large *D. filix-*

mas for comparison. *Athyrium filix-femina* and *Dryopteris dilatata* soon appeared in large numbers and we found the first of many *Blechnum spicant*. New records were a single plant of *Asplenium scolopendrium* on a reinforcing wall and *Dryopteris cambrensis* growing nearby.

As we turned from the main valley past the remains of the salt route pack-horse bridge, we found *Oreopteris limbosperma* and were pleased to observe the often elusive lemon scent. Once in the cloughs proper, *Oreopteris* became dominant, with some of the largest and most luxuriant specimens (up to 110 centimetres) that any of us had ever seen.

The water levels were high, so we decided not to boulder-hop up any of the streams, but to follow the only one that possesses any sort of path. We forded the confluence of 'Near' and 'Middle' with some difficulty and began to scramble up the huge boulders forming the side of Middle Black Clough. There were some tempting caves and other holes, which we checked for *Trichomanes* gametophytes; the rock is right, but all we found were blechnums growing in remarkably dark conditions. Definitely worth more investigation.

Several members of the group decided that they could not possibly return by the way they had come and we headed upstream. Guided by Henry Folkard, we scrambled across some very steep rocky ground past lovely cascades and falls. When the clough became a little less steep-sided we struggled up the tussocky grass to have lunch on a comfortable little crag – in the wind and out of the midges. Many members were delighted to meet (non-fern) moorland species they had not previously seen, especially cloudberry, cowberry and bearberry. We headed across the open moor on a compass bearing to find steps down to a ford across 'Far'. Easy walking on the shooting track (enlivened by a lesson on the digestive processes and faeces of the red grouse) led us back to a tricky ford across the combined cloughs. Back at the bridge we found more *Asplenium scolopendrium* and some *Equisetum arvense*. We set off for home with some relief that we had all made it.

Dovedale, Staffordshire – 28 September

Roland Ennos

The last field meeting of the year was a walk down the Staffordshire side of Dovedale to survey for ferns, in particular to search for specimens of rustyback (*Asplenium ceterach*), which we had previously found on the Derbyshire side at Wolfscote Dale. Starting from the car park in Milldale (43/136548), we strolled down to the old bridge, passing a nice clump of Dovedale moss (not a moss in fact, but a saxifrage) and our first fern, *Polypodium interjectum*. The ancient bridge itself was covered profusely in both *Asplenium ruta-*



photo: Y.C. Golding

Bridge over Dovedale

Sue & Ken Seal, John Grue, Henry Folkard, Roland Ennos

fragilis. From the bridge we set off southwards, not on the usual walk but on a path on the far less frequented Staffordshire side. Wending through steep grassland and mixed oak/ash woodland, the path afforded excellent views along the dale, and was home to a variety of typical calcicole woodland species: *Asplenium scolopendrium*, *Dryopteris dilatata*, *D. filix-mas* and *Polystichum aculeatum*. Following the path we eventually reached the river bank again, where we lunched close to a beautiful clump of monkey flower, *Mimulus*.

Carrying on southwards through the beautiful alder woodland of Hurt's Wood, we arrived at Ilam rock (43/142531), an outcrop of reef limestone where we again found numerous wall ferns, with *Polypodium interjectum* being particularly profuse along the top of the ledges, as it so often is in the white peak. Crossing the footbridge and going south on the Derbyshire side, we made a short excursion into the narrowest part of the Dovedale gorge, where it is particularly dark and where fine specimens of *Polystichum aculeatum* cover the walls of the Dale. Retracing our steps, we re-crossed the footbridge, passed again through Hurt's wood and walked up Hall Dale. It was in this dale, wooded on one side and grassy and rocky on the other that we hoped to spot more limestone ferns. However, despite the good habitat we found no new species, though scree slopes were found that did have several interesting large leathery specimens of *Polystichum aculeatum* among the boulders. Reaching the top of the dale near the village of Stanshope, we turned off north-eastwards to follow a path that had extensive views over the tops and Dovedale itself before dropping steeply back down to Milldale. Sadly no rustyback fern was found on the Staffs side of Dovedale but it was a very enjoyable walk.

[During our walk we embarked on a discussion about cultivars and how we very rarely find them in the wild. Immediately following this we found forked specimens of hart's tongue fern, hard shield fern and, more unusually, brittle-bladder fern (*Cystopteris fragilis*). Perhaps we should look more carefully! YG]

Thwaite Botanic Gardens, East Yorkshire – 26 October

Yvonne Golding

The last meeting of the year was also my last as leader of the Manchester fern group, as by October Roland and I had moved across to East Yorkshire.

Alison and Chris Evans, Ann Haskins, Ken and Sue Seal, Pamela Simpson, Paul and Eily Ruston, Roland Ennos and I all met for a good brunch at nearby Skidby Mill before going on to the University of Hull's Thwaite Botanic Gardens in Cottingham (54/053327). There has been a long history of fern growing at Thwaite. A collection was originally put together by Dr B.T. Cromwell back in the 1920s. During the war he went to work at the research station at Auchincruive in Scotland, taking his collection with him, but brought the ferns back to Hull University when he took up a Readership in Plant Biology after the war. In 1948 Jean Marston was appointed to develop the site in Cottingham as a University Botanic Garden. Dr Cromwell donated his fern collection and Mrs Marston continued to grow ferns from spores obtained from Cambridge, Oxford, Glasgow, Edinburgh and Chelsea Physic Garden. In addition, Mrs Marston was a member of the BPS and obtained many spores of unusual species from the Spore Exchange. By the 1950s and 60s there was a large range of ferns grown in four heated greenhouses as well as a representative collection outside. In 1978 Mrs Marston retired from University life but continued to run a fern nursery in Driffield. She has since died and the nursery closed. In the early 1990s the gardens were threatened with closure and the tropical house (now the car park) was demolished and the fern collection mostly lost. Now my fern collection is housed at Thwaite.

We looked at my outside collection, many of which were still looking green; the polypodiums were looking especially good. We then split into two groups – Roland took members around the 23 acres, pointing out the very fine trees, while I showed the other group my fern collection under glass. The *Cyathea cooperi* subsp. *tomentosissima* and the *Blechnum tabulare* were very striking, as was the *Adiantum polyphyllum* rescued from Moorbank Botanic Garden, and my favourite, *Polypodium azoricum*, donated by Tim Pyner. I then rushed off to prepare tea and scones while the group wandered around the other greenhouses comprising a fernery planted up by John Killingbeck, current President of The Friends Group. This has some large *Platycerium* species, *Blechnum gibbum* and *Dicksonia antarctica* among others. There is also a fine collection of cacti and succulents.

Although I cease to be the leader of the Manchester Group I doubt it will be the last time I see its members! Thanks very much to all for making the group such a success over the last four years and especially to John Grue who has agreed to continue running the group.

NORTH-WEST

Kendal Museum, Cumbria – 10 April

Bruce Brown

Not a Group meeting, but North-West members were invited to the official book launch of *The Three-legged Society*, hosted by the Kendal Museum. Alec Greening gave a good review of this book in *Pteridologist* 2012, p. 388. The book describes the lives and achievements of three eminent Lake District Victorian botanists and fern collectors – George Stabler, James Barnes and Joseph Martindale. Frances Haigh and I joined the gathering to hear lively accounts and anecdotes from the authors Ian Hodkinson and Allan Steward. A buffet afterwards gave time to chat and observe some of the museum's artefacts relating to these collectors.

The book is a good read and available from the Kendal Museum (www.kendalmuseum.org.uk) for £14.95; it includes a free CD detailing the museum's botanical collections of the three botanists, plus the fern collection of another local, Frederic Clowes (which was transcribed by Frances Haigh and Robert Sykes in 2004).

Eskdale, Cumbria – 14 September

Mike Porter

On a superb late summer day, 12 members of the North-West Group and friends met at Forge Bridge (34/149995) in mid-Eskdale to look at the rich fern flora of Milkingstead Wood. Our particular aim was to check on the progress of *Dryopteris aemula*, which grows here in one of only four currently known sites in Cumbria. Despite its situation very close to the highest mountains in England, Milkingstead Wood is mainly low level, growing on a rough slope from 25 metres to 90 metres above sea level. It is a mixture of wet woodland and craggy outcrops and is dominated in different areas by birches and oak. The ground flora is a varied mix including areas of bracken, wet *Molinia*, sphagnum, ferns and an impressive number of bryophytes.

The edges of the track leading into the wood held good numbers of the commoner Lake District ferns: *Athyrium filix-femina*, *Dryopteris filix-mas*, *D. dilatata*, *D. affinis*, *Oreopteris limbosperma*, *Pteridium aquilinum* and, close to the stile and gate, a nice colony of *Phegopteris connectilis* (34/1496.9951). However, interest was really awakened by the damp crags that occur along the lower slopes of the woodland and which hold the filmy ferns for which the wood is well known. *Hymenophyllum wilsonii* occurs in 165 tetrads in Cumbria, the vast majority of these being in the Lake District while, until recently, *H. tunbrigense* was known from only seven tetrads in the county, all but one of them in Eskdale. In Milkingstead Wood, *H. tunbrigense* greatly outnumbers *H. wilsonii*, although there are a number of places where the two grow together. It seemed on this occasion that both ferns were somewhat less frequent than on previous visits, although there were still excellent colonies, particularly on the higher crags in the wood.

The search for *Dryopteris aemula* now began in earnest, Bruce Brown using a photo of the site taken a few years ago and Mike Porter a GPS reading, also from a previous visit. Interestingly, both methods worked perfectly and the two separate but closely adjacent sites were found with comparative ease. The ferns, 14 at one site, three at the other, grow on a wooded craggy area with some patches of steep rock, towards the top of the wood (34/153995). All were in excellent condition, the crisped fronds readily recognisable and the dark purplish base of the stipe providing easy confirmation. It is difficult to judge in such a rough site but the number recorded on previous occasions was probably lower, suggesting that here *D. aemula* is at least holding its own and may indeed be increasing. Pleasingly, the close association of this fern with *H. tunbrigense* was again demonstrated, with healthy examples of the two growing within inches of each other. Other interesting ferns were found in the close vicinity – a possible hybrid of the two filmies, spotted by the keen eyes of Mike Wilcox (later rejected by Fred Rumsey) and two fine *Dryopteris* specimens – *D. affinis* subsp. *paleaceolobata* and *D. borrieri* morphotype *robusta*. Well satisfied with our morning's work, we headed back to Forge Bridge for lunch.

In the afternoon we made a non-ferny sally to try to find *Impatiens noli-tangere* (touch-me-not balsam), a Lake District speciality that has done tremendously well this year in its strongholds in the central Lakes. We were unable to refind this outlying site near Muncaster Head but, to everyone's surprise, we did find a splendid plant of *Osmunda regalis* growing in a hedge not far from the farm (34/139989). We were unable to work out how it had arrived in this rather dry site and supposed it was an escape (but from where?)

Afterwards, a somewhat reduced group drove up the dale to Dalegarth Station to park, before walking on to Boot and thence to Whillan Beck (35/178015). This is a steep-sided gorge where Mike Porter had found good quantities of *H. tunbrigense* 15 years previously but had been unable to find any in 2011. On this occasion several good patches were found but it seemed not as frequent as Mike remembered it, although memories of such things are notoriously unreliable.

While the remnants of the main group were scrambling around near Whillan Beck, a splinter group consisting of Alison and Chris Evans was exploring Keyhow Coppice (34/129007), finding an interesting selection of ferns in the *Dryopteris affinis* group, including *D. affinis*, *D. affinis* subsp. *paleaceolobata* and *D. borrieri*, as well as two plants as yet unidentified.

Other ferns seen during the day were *Asplenium ruta-muraria*, *A. scolopendrium*, *A. trichomanes* subsp. *quadrivalens*, *Blechnum spicant*, *Dryopteris carthusiana*, *Polypodium interjectum* and *P. vulgare*.

The meeting broke up in continuing warm sunshine; with sparkling views of the fells and over the Irish Sea to the Isle of Man. Next day Eskdale was battered by strong wind and torrential rain.

Annual General Meeting, Holehird, South Cumbria – 14 October Peter Campion

Nineteen members came to the nineteenth AGM of the North-West Group. After coffee and biscuits, Mike Porter presented 'Plants and Wildlife of Cumbria' to us as a slide-show. In contrast to his 'Ferns of the Lake District' last year, we were reminded of the decline of many birds, mammals and flora; it made the fern world look to be thriving. Mike's photographs were stunning and although a few were from friends he is to be congratulated. Altogether a breath of fresh Lakeland air!

After lunch and a quick trip round the gardens to admire the hard work that Steve Mees is putting in on the *Polystichum* collection, we gathered for our AGM. The secretary gave a summary of the year's activities and thanked those who had led the outings. Ann Haskins presented the accounts for the year – thank you Ann. Peter Campion was re-elected as Hon. Secretary and Ann Haskins as Hon. Treasurer. Robert Crawford won the Indoor and Hardy fern competition deservedly, even though there was little opposition. Thank you to Frances Haigh



photo: P.J. Campion

Cynthia Kelsall looking at the D'Oyleys with Michael Hayward

for judging the ferns and congratulations to her for a combined entry with her husband Charlie to the fiendish crossword competition set by Alec Greening. We look forward to a new competition next year Frances!

An open forum then took place. Michael Hayward showed a fascinating series of pictures and examples of Jamaican 'doyleys' or 'D'Oyleys', named after the eponymous Governor, Frances Haigh showed pictures of a detective hunt for a *Polypodium cambricum* variety in a quarry, and Peter Campion showed a few pictures of ferns from a recent trip to the Pyrenées. Thank you to all who contributed and encouraged us to share our enthusiasms as well as to those who offered ferns for sale, thus contributing to our funds.

After tea and rather good cakes the meeting closed; another good AGM.

SCOTLAND

Rosneath Slate Quarry & Linn Botanic Gardens, Argyll – 25 May

Alastair Wardlaw

(Participants: Liza Downie, Tim Godfrey, Bridget Laue, Frank & Linda McGavigan, Paul Sharp, Jamie Taggart, Alastair Wardlaw, Maurice Wilkins.)

The Scotland Group's first excursion of the season was to the Rosneath Peninsula, which juts southwards from Argyll into the Clyde Sea Area. Our leader, Jamie Taggart, had fortunately persuaded the Forestry Commission to disclose a padlock code number to open the gate at 26/224867 beside the road linking Gareloch and Loch Long, thereby saving us a longish hike. In three cars we then bumped along a dirt track for four kilometres, just below the spine of the peninsula to the long-abandoned Rosneath Slate Quarry. The site is on a



photo: A.C. Wardlaw

***Cryptogramma crista* site on the spoil heap of the abandoned Rosneath Slate Quarry, above Gareloch. *Dryopteris affinis* uncoils in the foreground**

Frank McGavigan, Tim Godfrey, Maurice Wilkins, Liza Downie,
Bridget Laue, Paul Sharp, Jamie Taggart

steep hillside 150 metres above Gareloch and looks down on the Faslane nuclear submarine base. We had come to see *Cryptogramma crista* and were not disappointed. Dozens of mature clumps of parsley fern, mingling with *Dryopteris affinis*, had colonised the slate spoil-heap (26/245836) and were splendidly displayed in breezy, midge-free sunshine. As with so many fern sites, there is a mystery about the original source of the *C. crista* and the dynamics of colonisation down the years.

Uphill from the spoil heap was the quarry itself (26/244835), its walls and marshy bottom having a larger selection of ferns: *Asplenium adiantum-nigrum*, *A. scolopendrium*, *A. trichomanes* (probably subsp. *quadrivalens* and subsp. *trichomanes*), *Athyrium filix-femina*, *Blechnum spicant*, *Cryptogramma crista*, *Dryopteris affinis* agg. (almost certainly *D. affinis* itself but others also), *D. dilatata*, *D. filix-mas*, *Oreopteris limbosperma*, *Polypodium vulgare* (and possibly *P. interjectum*). The forestry-cleared hilly area around the quarry was well-infiltrated with *Pteridium aquilinum*.

The day's second venue was Linn Botanic Gardens (26/224826), owned by Jamie Taggart. As a keen BPS grower of British and foreign ferns, Jamie has a large labelled collection, with the emphasis on species rather than variants. The Linn site is on steep and wooded ground within 100 metres of the sheltered Loch Long. The Gardens thus enjoy a much milder climate than even slightly farther inland. Ferns are displayed among trees and shrubs, abundantly Southern Hemisphere. Special ferny niches have been established in the walls and overhangs of a deep gully created by a cascading stream. The ferns include many that in the UK are normally under glass. A partial list of the specialities would have to include *Blechnum cycadifolium*, *B. palmiforme* and *B. vulcanicum*, *Dicksonia antarctica*, *Leptopteris hymenophylloides* and *L. superba*, *Lophosoria quadripinnata*, *Pyrrosia rupestris*, *Thyrsopteris elegans*, *Todea barbara* and *Trichomanes speciosum*. On level sections were large patches of *Dryopteris wallichiana*, *Matteuccia struthiopteris* and *Onoclea sensibilis*. Representing horsetails were *Equisetum arvense*, *E. pratense* and *E. sylvaticum*. Jamie's father, Jim Taggart, welcomed us with soup, sandwiches and coffee. Purchase of irresistible ferns from the nursery ended the visit.

[Very regrettably, Jamie Taggart went missing during a solo botanising trip to North Vietnam in October 2013 and has, as of 7 March 2014, not been found. ACW]

BioBlitz at the Royal Botanic Garden Edinburgh – 21-22 June Heather McHaffie

The Botanics hosted a BioBlitz to record as many plants and animals as possible in 24 hours, at which the Scotland Group of the BPS participated. It started on a beautiful midsummer late night opening on the Friday evening as experts were starting their lists wandering (or crawling) around the Garden. I took the opportunity to delve behind bushes to look at walls I had never reached before. The BBC was present, giving updates on the recording effort and filming pond-dipping for *Midsummer Live*. The fern list for the garden is not extensive, but I had never taken the time to find *Asplenium ruta-muraria* before, and it turned up on two walls and some brick cold-frames. We decided only to count ferns that had colonised by themselves, not native ones that had been planted. A team was kept busy typing the lists of species found by experts and visitors into the National Biodiversity Network website, and all the records were verified later in preparation for a leaflet that will list and summarise the species found.

On Saturday the weather was less certain and the BPS activities were centred within the John Hope Gateway visitor centre along with other organisations. We had a table with leaflets, microscopes and some ferns (borrowed from Horticulture). Staffed by Chris Nicholson, Bridget Laue and myself, we entertained passing people. There were gametophytes to look at, real ones in a plastic box, my home-made models and the BPS life-cycle leaflet to use for explanations. We also had *Equisetum* spores, which were as popular as ever with adults and children alike. I explained how they worked with my home-made models made from golf-balls painted green with paper elaters. The *Dryopteris*

dilatata plant we had been lent was beautifully fertile so we encouraged people to use hand-lenses and look at the sporangia. The *Dryopteris* pot was also colonised by young *Osmunda* so we mentioned them too.

There was a programme of walks and talks throughout the day and I led a group for a short walk to look for native ferns that had established near the glass houses, with a brief three-species handout prepared in advance. *Dryopteris filix-mas* conveniently grew beside some *D. dilatata*, with *Athyrium filix-femina* nearby. People were asked if they wanted to stay for longer and we all came back via the alpine house area and looked at *Asplenium scolopendrium*, *A. ceterach*, *A. trichomanes* and my just-noticed *A. ruta-muraria*. Back at the Gateway we had a steady stream of people, with a sudden boost if there was a shower and also visits from people with other organisations. With better weather the numbers would have been higher but we had many useful conversations and met interested people with a simple set-up that was covered by the three of us during the day.

Geilston Garden, Cardross, Argyll (26/339783) – 27 July Frank McGavigan

(Participants: Cliff Davies, Liza Downie, Joanna Gough – Head Gardener, Tim Godfrey, Michael Hutchison, Frank McGavigan, Chris Nicholson, Melissa Simpson – Garden Adviser, Maurice Wilkins.)

This was to be an introduction to ferns for beginners. We had chosen the National Trust for Scotland garden at Geilston because it has a good selection of the commoner ferns and is close to the main centres of population. In the event, initially at least, no members of the public joined us (although half way round our tour two visitors, who had primarily come to the garden to look at butterflies, tagged along). So as well as our NTS hosts we started with ‘weel kent’ faces from the Scotland Group, several of whom, to my disbelief, confessed to be ignorant of the identification features of our common ferns.

Now it is one thing to identify ferns as part of a group; it is quite another to stand in front of an audience and explain the differences, so in a way I was glad that my listeners were BPS stalwarts and therefore not likely to give me a hard time. With the help of live ferns that I had brought along from my garden, I was able to show frond division from the entire fronds of *Asplenium scolopendrium* through polypodies and male ferns to the three times divided *Dryopteris dilatata*. Thank goodness for the sample plants – without them I’m sure I would have got into a dreadful muddle.

I then explained, with the help of the BPS’s excellent leaflet ‘The Private Life of Ferns’ the two stage process of fern development and was able to demonstrate gametophytes (grown from spores courtesy of the BPS Spore Exchange) and also gametophytes with sporophytes beginning to emerge.

But people had come for a tour not a lecture, so we began walking round the grounds. Acidic woodland in Scotland – I hardly need mention the ferns we found. *Dryopteris dilatata* and *Athyrium filix-femina* of course predominated with *Dryopteris filix-mas* and *D. affinis* agg. as runners up and a scattering of *Polypodium vulgare* throughout. The burn that runs through the property has had its banks reinforced with lime-mortared walls some time in the past. These had encouraged a proliferation of *Asplenium scolopendrium* and a few *Polystichum aculeatum*. Further downstream we came across some *Blechnum spicant* and, hardly surprisingly, a patch of *Pteridium aquilinum*. Then it was back to the walled garden to view a magnificent specimen of *Osmunda regalis*, obviously planted but a native none-the-less, unlike the two exotics that had appeared by chance in the greenhouse – *Pteris cretica* and *Adiantum capillus-veneris*. The final fern to mention is *Asplenium trichomanes*, which was present in various old walls on the property.

All in all it was a good collection for beginners to cut their teeth on, and well worth holding such an event again. Lessons learnt? Improve on the pre-event publicity to encourage more participants, and be better prepared for those innocent but difficult questions that beginners

throw at you, such as: “Why do ferns bifurcate?” or “Why does bracken not spore very often?” Anyone know the answers? I didn’t.

Kincardineshire coast – 24 August

John Edgington

(Participants: John Edgington, Mary Gibby, Tim Godfrey, Bridget Laue, Frank McGavigan, Paul Sharp, and Theo Loizou, BSBI Recorder for v.-c. 90, Angus.)

It is some time since the Society visited Cove, just south of Aberdeen, where in the 1830s the University’s Professor William Knight showed *Cystopteris dickieana* to his pupils, including Dickie, in several sea caves. On a miserably ‘driech’ day in an otherwise wonderful Scottish summer, seven of us managed to find our way through the coastal haar to Cove Harbour at the appointed time of 10 a.m., chosen to coincide with the low spring tide. Clambering over exposed (and slippery) rocks we entered our first destination, a cave (38/9543.0061) whose roof and sides were draped with *Asplenium marinum*, *Athyrium filix-femina* and our quarry, Dickie’s bladder fern. Here it looks totally unlike *C. fragilis*, with broad, densely imbricate pinnae looking more like lettuce than a fern. A few *Dryopteris dilatata* completed the unusual assemblage. *C. dickieana* seems safe enough here, protected by the sea and the inaccessibility of the plants on the high roof of the cave.

Leaving before the tide turned, we walked north along the cliff top to a second site where a cave roof has collapsed, leaving an overhang on the side of a vertical cliff close to where a small burn cascades down to the sea in a delightful waterfall. Safely (just) negotiating a vertiginous route to the overhang at 38/9559.0098 we found a great deal of *Asplenium scolopendrium*, more *Athyrium* and many plants of *Cystopteris*, varying from typical *C. fragilis* to close to the *C. dickieana* we had seen earlier. The illustration shows two examples; on examination, both proved to have rugose spores, supposed to characterise *C. dickieana*. There is pure *C. fragilis* here too, with spiny spores, so perhaps some genetic exchange is going on.



photo: J. Edgington

Fronds of *Cystopteris* from the waterfall site, 39/9559.0098; both have rugose spores

Leaving Cove, we took the coast road south, a great drive in good weather but a bit of a nightmare in thick fog, to Mill of Benholm (37/806690), reputedly of the 12th century and now the only working meal mill in Kincardine. Run by volunteers, it serves delicious lunches, which we sampled after a walk around its woodland brae with *Dryopteris dilatata* and *D. filix-mas*, and *Polypodium vulgare* on a rocky outcrop. The Manager, Mike Burleigh, has developed a Victorian-style fern bank along the burn feeding the Mill. Here we saw a variety of introductions – *Cyrtomium fortunei* and *Polystichum munitum* alongside native *P. setiferum* and *Blechnum spicant* – as well as original denizens of the bank such as *Polystichum aculeatum* and *Asplenium scolopendrium*, all contributing to a singularly natural appearance. Before leaving the Mill we walked a short distance to the village of Benholm to see *A. ruta-muraria* on a bridge over the mill burn. There were dozens of separate clumps, all, as Mary explained, probably derived from a single initiating spore, and hence genetically identical.

A short distance further south was our final site of the day, Denfinella, ‘den’, like the southern ‘dene’, signifying a steep wooded ravine. The road crosses an unremarkable bridge (37/7716.6647) but beneath is an awesome chasm whose steep banks are clothed with



photo: M. Gibby

Benholm Mill, Kincardine

Tim Godfrey, Frank McGavigan, Paul Sharp, Theo Loizou,
Bridget Laue & John Edgington admire the fern bank

walls had similarly impressive clumps of *Polypodium interjectum*, culminating at the southern end with a large, evidently clonal swarm of polypody with very large fronds and shrivelled sporangia that we agreed was probably *P. × mantoniae*, its hybrid with *P. vulgare* (subsequent observation of abortive spores confirmed this). Happy with this, and glad to leave the rain behind, we left the Mearns for home.

Puck's Glen, Argyll (26/148844) – 21 September

Frank McGavigan

(Participants: Carl Farmer, Mary Gibby, Tim Godfrey, Bill Greasley, Angus Hannah, Susan Hutchison, Jane Jones, Liz Lavery, Gillian Little, Morven MacLean, Malcolm Macneil, Frank McGavigan, Jim McIntosh, Marion Moir, Pam Murdoch, Karen Rentoul, Adam Samson, Rebecca Smith, Jill Williams.)

No fewer than 16 BSBI members joined just three BPS stalwarts for this joint meeting between the societies. The group quickly divided into two: the beginners came with me, and a more advanced set, who were mainly interested in differentiating the various members of the *Dryopteris affinis* agg., were led by Mary Gibby. Using my set of demonstration ferns, mostly hoicked from my garden hedge, I explained that the first step in identifying ferns is to count the number of divisions the fronds have, and then, with the help of the BPS's diagram, I discussed the two-stage life-cycle of ferns. The gametophyte stage where reproduction takes place was clearly new to several of the audience.

Then it was up the glen to look at the sporophytes, or what my audience recognised as ferns. But which ferns? The undivided *Asplenium scolopendrium* and the once-divided *Blechnum spicant* and *Polypodium vulgare* were easy enough to learn. But the *Dryopteris* clan are much more difficult for beginners. The dark stripe down the centre of the stipe scales was a dead give-away for *D. dilatata*, and once we got our eye in, the crimped pinnules of *D. aemula* were everywhere, though the hay scent was elusive. Distinguishing between the male ferns, *D. filix-mas* and the *D. affinis* agg., (when is a black spot not a black spot?) to say nothing of the subspecies, requires a bit more experience. Throw in *Athyrium filix-femina* (is it twice or three-times divided?), and *Oreopteris limbosperma* (who is kidding whom about that lemon scent?), and *Polystichum aculeatum* (mitten-shaped-pinnules? glossy fronds? not exactly definitive characteristics), then you have a recipe for confusion. But the team were keen and willing to learn and were soon mastering

Dryopteris cambrensis (a common scaly male fern hereabouts), *D. dilatata* and *Polystichum aculeatum*. *P. setiferum* has been sighted here, too, and *Athyrium filix-femina*, but today we were not foolhardy enough to descend the sodden unstable slopes in search of them. There was compensation, though, from the dominant vegetation near the bridge, namely massive plants of *Asplenium scolopendrium*, some with fronds nearly a metre long. The bridge

the basics and asking lots of questions. Most already knew beech fern with its two protruding lowest pinnae, and no doubt would have recognised oak fern if its characteristic apple-green colour had not been dulled by the gloom of the glen.

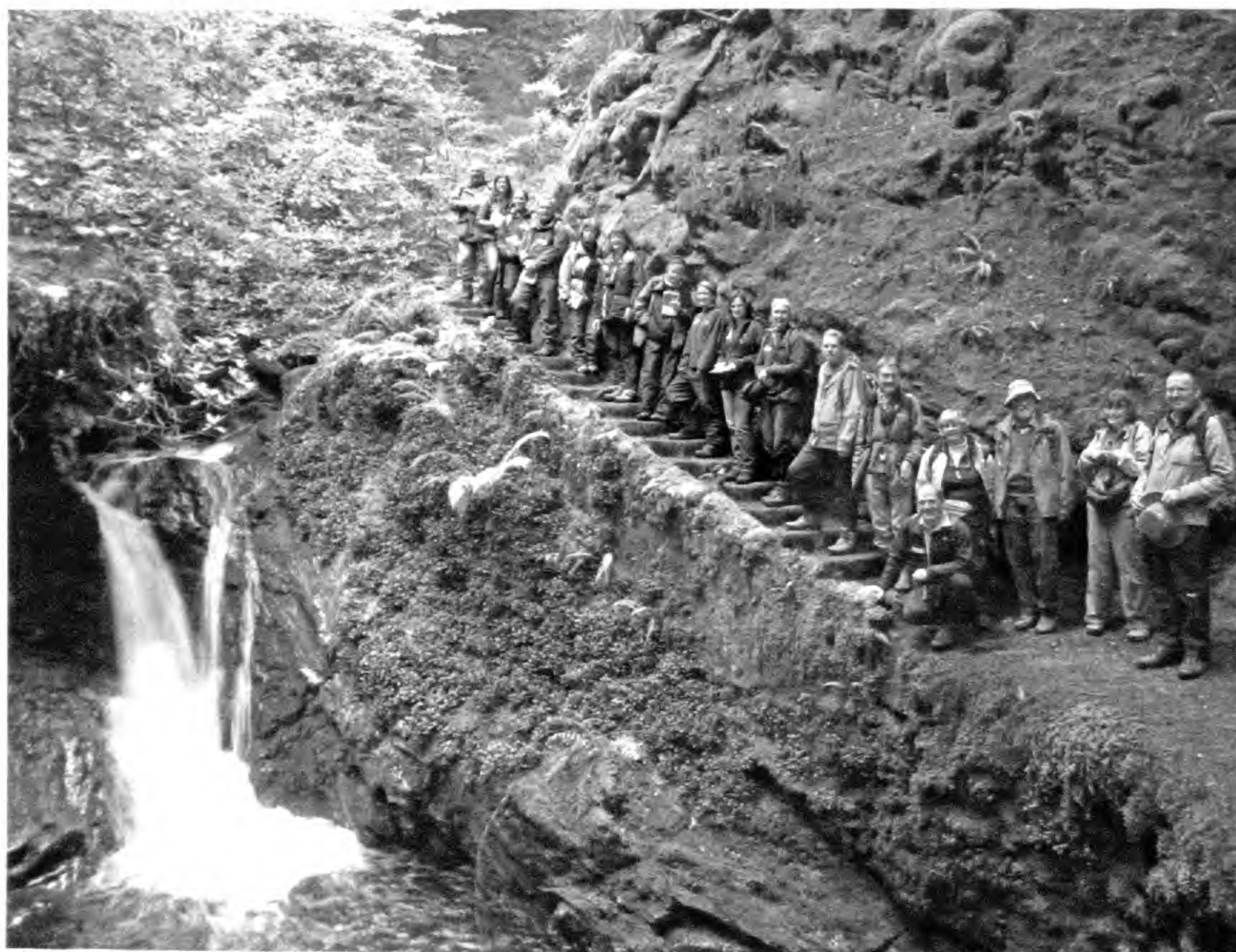


photo: M. Gibby

Puck's Glen - BPS/BSBI meeting

Bill Greasley, Karen Rentoul, Morven McLean, Adam Samson, Marion Moir, Jill Williams, Susan Hutchison, Rebecca Smith, Gillian Little, Jane Jones, Malcolm McNeil, Carl Farmer, Jim McIntosh, Pam Murdoch, Angus Hannah, Liz Lavery, Frank McGavigan

There was a great deal of interest expressed in filmy ferns (*Hymenophyllum*), which Puck's Glen has in abundance (*tunbrigense* with teeth, *wilsonii* without, referring to the edges of the two lobes of the indusia). And wall ferns are a study in themselves – we admired the *Asplenium trichomanes* on the bridge on the way out of the glen, and later *A. adiantum-nigrum* (now is that once, twice or even three-times divided?) in Benmore Garden where we spent the afternoon. But our main aim at Benmore was to visit the fernery, full of wonderful exotics, among which were two natives of particular interest to my beginners – *Polystichum setiferum* and the elusive *Trichomanes speciosum*. Outside among the mass plantings of hardy exotics there was a bed of *Osmunda regalis*. So if you're new to ferns and want to learn more, Puck's Glen and Benmore are excellent places to start. We must do it again.

Autumn Meeting, Edinburgh – 5 October

Mary Gibby

(Participants: Liza Downie, Adrian Dyer, Mary Gibby, Tim Godfrey, Roger Golding, Frank Katzer, Susan King, Bridget Laue, Frank McGavigan, Heather McHaffie, Nadia Russell, Paul Sharp, Alastair Wardlaw, Maurice Wilkins.)

Bridget Laue and Paul Sharp kindly welcomed a dozen members to the autumn meeting of the Scotland Group that was held at their home in Edinburgh. I cannot call it an indoor meeting as the morning was very much taken up by the exploration of their garden and its wonderful collection of ferns. Bridget and Paul have created a magnificent landscape that shows off their large collection of ferns to perfection. The 150+ fern specimens – a wide

range of species and cultivars, and including a few horsetails – are all labelled, and were the focus of much discussion. There had been a touch of frost just preceding the meeting and the fronds of *Osmundastrum cinnamomeum* at the bottom of the rockery certainly had a touch of cinnamon. Members had been generous in providing a range of ferns for the plant sale and Frank Katzer brought along a selection of books, all raising funds for BPS coffers.

The resident chef, Paul, hosted a splendid lunch, and this was followed by a short talk by Mary Gibby on her recent visit to Hospitalfield, Arbroath, where there is a derelict fernery, and her participation at an exhibition by Deirdre Robertson, a masters student at Duncan of Jordanstone College of Art, on Patrick Geddes and his plan for a fernery in the Law Tunnel. But the highlight of the meeting was an illustrated talk by Roger Golding on the recent trip to Yunnan in south-west China by an international group of BPS members. They were lucky enough to be escorted by local fern experts, and we saw images of ferns from the warm tropics to the mountain flora in northern Yunnan, and amazing views of the rural and urban landscapes. Many thanks to Paul and Bridget for their hospitality, and to Roger for travelling north and giving such a great talk.



photo: M. Gibby

Derelict fernery, Arbroath

BPS Stand at the BSBI/BSS Annual Meeting, Royal Botanic Garden Edinburgh – 2 November

Frank McGavigan

The annual meeting in Scotland of the Botanical Society of the British Isles (now known as the Botanical Society of Britain and Ireland) and the Botanical Society of Scotland is apparently the largest BSBI meeting in the country, attracting not just Scots but BSBI members from the north of England and the many Scottish Vice-county Recorders who live even further south. So naturally we took a stand to promote the BPS. As well as the usual posters and leaflets, we displayed copies of John Edgington's new book *Who found our ferns?*, which sold well, and pictures from Ken Trewren's soon-to-be-published *Dryopteris affinis* guide. Now that three common species are formally recognised, Ken's guide attracted a lot of interest from VCRs, keen to record them correctly. This was an enjoyable meeting with a receptive audience, many of whom, if not already, are potential BPS members.

SOUTH-EAST

Beckley Wood & Great Dixter, Northiam, near Rye, East Sussex – 29 June

Michael Radley

Nine members met on a glorious sunny day at the western entrance to Beckley Woods (51/8543.2147). Our leader, Paul Ripley, had informed us that we should see *Dryopteris carthusiana* and *D. dilatata*, with the possibility of finding hybrids along with a rich variety of Wealden woodland ferns. Previously the weather had been wet but the going, though soft, was not soggy and everything looked fresh. We were soon to see *Pteridium aquilinum*, followed by *Dryopteris affinis*, *D. filix-mas*, *D. carthusiana*, *D. dilatata*, *D. borrieri* and *Athyrium filix-femina*. All of these ferns were growing in the forest just to the sides of the track.

After leaving the track we made our way along a stream to a shadier spot where *Polystichum setiferum* was growing. After following the stream down further into more open forest there was *Asplenium scolopendrium*, and where the stream disappeared over a cliff in a small waterfall a plant of *Polypodium interjectum* was growing at the base of an old rotted stump. The waterfall was no more than a trickle of water falling thirty feet but was still impressive. We had hoped to find other interesting ferns around the waterfall but it was not to be. Below the waterfall was a boggy section with a small *Equisetum telmateia*, and below this the stream had cut a small, steep-sided gorge, creating its own micro-climate and supporting a high density of ferns. *Blechnum spicant* was growing on one side of the steep bank, benefiting from the extra sun and drainage. Pat Acock made an extensive search for possible hybrids between *Dryopteris carthusiana* and *D. dilatata* but none could be found.

We made our way back to our cars and then went on to a second damp woodland site (51/8550.2150) to look for more hybrids, with one contender found. This was later confirmed to be *Dryopteris* × *deweeveri* by Pat Acock – a collected frond matched a specimen in the NHM and he confirmed that there were a lot of spores but all were abortive.



photo: A. Basil

***Ophioglossum vulgatum* site, Great Dixter garden**

Standing: Steve Munyard, Peter Tindley,

Karen Munyard, Pat Acock, Tim Pyner

Kneeling: Paul Ripley, Michael Radley, Jo Basil

After lunch we made our way to Great Dixter, a (much altered!) mediaeval manor and a fascinating plantsman's garden, former home of the writer Christopher Lloyd but now in the stewardship of Fergus Garrett. One of the great delights of the day was *Ophioglossum vulgatum*, naturalised in the garden meadows. At first they were difficult to see amongst the impressive carpet of wild flowers but then the small plants were spotted, profusely growing and at their best. The garden contained a number of cultivars,

many of which we did not list, though one to note was *Polystichum setiferum* 'Bevis', growing in the sunken garden to the side of the house along with a fine example of *Adiantum aleuticum*. In the same garden was *Arachniodes standishii*. *Asplenium scolopendrium* had taken up residence between the pathway steps and an unidentified *Polystichum* was growing in the wall. As we left this garden, *Blechnum chilense* was seen tucked in a shady spot with *Asplenium trichomanes*. Within the sheltered garden there was *Dicksonia antarctica*, *Lophosoria quadripinnata* and a more challenging *Cyathea cooperi*.

In the nursery's small greenhouse were several polythene bags of sporelings. It was great to see a commercial nursery growing their own plants rather than just importing plants and selling them on. The day was completed by scouring the nursery for interesting purchases, followed by afternoon tea.

I would like to thank Paul Ripley for organising a very enjoyable day at two excellent venues, both of which are worthy of return visits.

Cultivar Group Meeting, Fibrex Nurseries, Pebworth, Warwickshire –

3 August

Bryan Smith

The Cultivar Group goes from strength to strength and this meeting was no exception. Organised by Julian Reed, the day attracted nearly thirty participants including several Americans from the Hardy Fern Foundation who were on a round-Britain tour led by Martin Rickard.

We began the day at this family-run nursery with tea, coffee and cakes before heading to one of the poly-tunnels, which our hostess, Angela Tandy, uses for growing and displaying ferns. It wasn't long before we were taking photos of some really unusual and handsome ferns. The ones I particularly noted were *Athyrium palustre*, *A. filix-femina* 'Plumosum Penny' and 'Setigerum', *Dryopteris dickinsii*, *D. juxtaposita*, *D. × australis*, an undulate *Osmunda regalis*, *Polystichum tripterum*, *P. xiphophyllum* and several *P. setiferum* cultivars including 'Ray Smith', but others had their favourites as well. We then headed off to several greenhouses that had ferns for sale. It was like being in a sweet shop, and we were even given the option to purchase ferns not obviously for sale.

Angela and her helpers then treated us to a terrific buffet lunch before we moved to a barn where Richie Steffen showed slides and talked about the Elisabeth C. Miller Garden in Seattle, where he is curator. This was followed by Angela giving us a talk on how she successfully grows ferns – as evidenced by the huge stock at the nursery. Her trick is to sow spores in August and bring the ferns on in a 50°C propagation house so that they are eventually ready as mature plants the following spring. The excellent hospitality was still not over, and before we

left we were treated to a strawberries and cream tea. It remained hot and sunny all day, and we even had a 'swap shop' of ferns brought along by members. What a fabulous day we had – all thanks to Angela and her helpers – and there were even plants other than ferns to tempt us, including pelargoniums, hederas, begonias and hellebores.



photo: S. Olsen

Asplenium scolopendrium cultivars at Fibrex Nurseries

The Netherlands – 22-25 August

Leaders: Wim de Winter & Pat Acock

Thursday 22nd – Hortus Botanicus, Leiden

Pat Acock

When Paul Ripley and I approached Wim de Winter in 2012 about holding a joint South-East/East Anglia regional group visit to The Netherlands, he was only too willing to show us some of the places that he felt we might be interested in, and welcomed us into his home. Wim then went on to plan and organise this four-day trip, which was a total delight. We met some really special Dutch fern friends old and new, and over the last two years have exchanged visits, fern experiences and ferns to our mutual benefit.

Four of us met up with Wim at Schiphol Airport, Amsterdam, early on Thursday morning. Wim drove us to Leiden Botanic Garden where we met up with fellow Britons Nick Lodge and Peter Blake, and our hosts for the day, Harry Roskam, Bart Hendrixx, Remko Beuving and Rens Huibers. After a much needed cup of coffee, we were taken above the café and

administration block to see a world-renowned collection of cycads as well as a large collection of insectivorous plants.

We were hurried into the renovated conservatory, which was to be officially opened by the Queen of The Netherlands the following week. Much work had been done in establishing many plants in a natural tropical array, including some interesting fern species such as *Cyathea cooperi*, *Cibotium regale*, *Goniophlebium subauriculatum*, *Angiopteris evecta* and *Drynaria sparsisora*. Once more we were hurried on by Harry Roskam and shown the outstanding collections of *Polypodium* that were assembled for monographs such as the *Flora Malesiana* publications of Peter Hovenkamp and Hans Nooteboom. These included the *Lecanopteris* that were brought over to Kew for the BPS Centenary conference, along with *Drynaria*, *Aglaomorpha*, *Microsorium*, *Pyrrosia* and *Davallia*, all growing splendidly. It was thrilling to see how a botanic garden can hold on to its principal values and look after such valuable plants for so many years.

We went on into the potting area where we noted how the plants were established in different types of compost on various bases. We were shown an amazingly small filmy fern, *Crepidomanes minutum* from SE Asia that had been successfully established on a small block of coir; the collector was rightly proud of having both collected and established it.

After lunch we returned to the outside fern beds. Harry had donated his large collection of ferns and had collected many more to fill these beds with a wide range of temperate ferns from all over the world. There was a special emphasis on *Dryopteris* but there were quite a few cultivars and a number of choice *Polystichum*, *Cystopteris*, *Phegopteris*, *Athyrium* and *Osmunda*. All too soon we had to depart, having briefly met the collections manager of the Hortus, Dr Gerda van Uffelen.

Wim drove us to our HQ for the next three nights, the delightful Hotel Geertien in Muggenbeet. We spent our evenings dining by the canal and were treated very well, however late we returned, by our most congenial hosts.

Friday 23rd – Area east of the former Zuiderzee

Paul Ripley

Our first stop was at Kadoelerkeersluis (bridge/lock into the Kadoelermeer; 52°39'30.8"N, 5°58'55.3"E) to see *Equisetum* × *ascendens*. This is the (triploid) back-cross between *E.* × *moorei* (*E. hyemale* × *E. ramosissimum*) and *E. hyemale*. It was growing well in quantity at the base of a bank that formed part of the sea defence and had probably been introduced when the bank was built in the 1960s. We also found *E. arvense* here.



photo: T. Pyner

Diphasiastrum tristachyum in the Netherlands

We then made our way to a dry sandy heath between Nunspeet and 't Harde (De Haere) (52°23'N, 5°50'E). The actual site, which was only a few yards north of the A28 motorway, comprises *Calluna* heath with sparse pines and juniper. Our object, *Diphasiastrum tristachyum*, was in good condition and appeared to be healthier than at our visit in 2012. We also saw *Dryopteris dilatata*, *D. carthusiana*, and maybe their hybrid, *D.* × *deweveri*, near the entrance to the site. (Mr De Wever was Dutch, so this name should be pronounced “də’waivəree”.)

After lunch, taken on the move, we met Piet Bremer at 't Hemelrijk (near Meppel) (52°40'24.0"N, 6°07'38.9"E), and entered an area of managed fenland where small areas of open water alternated with fen – mown regularly to prevent willow and alder carr formation – and pasture, where belted galloway cattle were grazing. The change of management had been quite recent, and the rapidity with which this fen community had matured was impressive. Both the soil and the water here have a basic pH. At the margins of clear water, *Pilularia globulifera* was everywhere, and *Thelypteris palustris* was common. Small plants of *Osmunda regalis* were also common, and on the margins of ditches we saw *Dryopteris dilatata*, *D. carthusiana*, *D. cristata*, *Athyrium filix-femina* and *Equisetum fluviatile*. We were told that *Huperzia selago* occurs here, but now only in one location as it does not survive mowing. However, we did see a good colony of *Lycopodium clavatum*.

Following a democratic decision, we made a journey to Bankenbos (53°01'27.5"N, 6°24'47.8"E), a wood on a sand/boulder-clay ridge bordering an (acid) raised bog. Conifers, now mature, had been planted, with oak and beech along the margins of the wood. We were greeted at the entrance by a most impressive sign, which depicted all the ferns that we were likely to see in the wood; we saw them all except *Gymnocarpium dryopteris*. The ditch banks were rich in ferns: *Athyrium filix-femina*, *Blechnum spicant*, *Equisetum arvense*, *Pteridium aquilinum*, *Oreopteris limbosperma*, *Dryopteris filix-mas*, *D. dilatata* and *D. carthusiana* were common. We also saw a few plants of *D. affinis* agg. This was consistent in appearance, and if the identity of a similar fern seen at Purmerbos, our last site of the meeting, is confirmed, may well be *D. cambrensis*. After a detour to see *Utricularia australis* in flower, we made Wim's day by finding two very good colonies of beech fern, *Phegopteris connectilis*.

We returned late and a little weary to our excellent billet, grateful again for our host's knowledge and leadership.

Saturday 24th – Noordoostpolder

Tim Pyner

On Saturday we were joined by Bart and Remko as we met up with Piet Bremer, who would be guiding us around two afforested areas in the polders. Piet explained that the polders were closed off from the sea in 1932 and that tree planting took place during the 1940s and 1950s. Most of the ferns had therefore colonised naturally by spores within the previous 80 years and, as we would see, there were several exceptional surprises. The morning was spent in the Voorsterbos near Kraggenburg and our first stop was at an area experimentally opened up by felling a small area of trees (52°39'55.7"N, 5°53'55.5"E). This allowed colonisation by ferns. Typical ferns of the area, *Dryopteris dilatata*, *D. carthusiana*, *D. filix-mas*, *Athyrium filix-femina* and *Equisetum arvense*, had established quickly and proved to be frequent at most localities visited during the day. A small patch of *Thelypteris palustris* was also present. Of particular interest was the colonisation by *Equisetum telmateia*, a rare plant in the Netherlands. This was now declining here due to increasing shade and competition. We also noticed two plants of *Dryopteris borrieri*, also rare in the region. Returning to the mini-bus, a short drive took us to our next stop (52°40'38.7"N, 5°53'52.6"E).

A short walk through woodland brought us to a winding stream in dappled shade. The water was gently flowing and crystal clear. Ferns abounded along the banks and it was most surprising to be told that the stream had only been created in 2007. Water was controlled by sluices and it was hard to believe that we were actually standing at two metres below sea level. Even more surprising was the reason for visiting this particular place, a large colony of *Equisetum sylvaticum*! This is another rare species in the Netherlands but must have established here soon after the digging of the stream. We also noticed a small plant of *Polystichum aculeatum*, new to the site, that had established on a pile of dredged soil.

On the way to lunch we stopped at Uiterdykenweg (52°44'40.3"N, 5°55'17.6"E) for a fruitless search for *Equisetum variegatum*, which used to grow on a sandy roadside verge. This site gained notoriety after a wolf was hit and killed by a car earlier in the year – the first record of a wild wolf in the country for over 150 years. Piet informed us that wolves are expected to re-colonise the Netherlands naturally within the next ten years.

After lunch we visited the Kuinderbos, another large plantation near Kuinre (52°47'03.2"N, 5°49'19.7"E). Our first stop involved a short walk to a ditch bank where to our surprise a large plant of *Polystichum lonchitis* sat amongst some common ferns. Piet explained that three plants of this species had been found growing in the polder woodlands in the last 25 years. This was the oldest plant and was remarkably healthy considering the habitat and altitude. The sandy soils overlay a layer of peat that provides sufficient water by capillary action through the summer months. Piet hypothesises that spores originating from Scotland were the source of the Dutch plants. Paul also spotted a suspected *Dryopteris* × *deweeveri* on a nearby bank, growing with both parents. At the next stop we jumped from the mini-bus into the undergrowth and there, again on ditch banks, was a thriving colony of *Polystichum setiferum*. This is another rare fern on the edge of its range but is apparently increasing.

Back into the bus and after another short drive we stopped at what was, for me, the most stunning sight of the trip (52°48'25.4"N, 5°46'46.5"E). Walking along a track through scrubby woodland we turned a corner and a large area of low-lying dry *Erica* heath came into view. Throughout this area the sparsely spread heathers grew above a yellowish haze. This haze was formed by countless thousands of *Lycopodiella inundata* plants, each with abundant sporophyllous branches. I have never seen anything like this and this memorable sight will remain in my memory. Between the heather bushes the *Lycopodiella* plants formed a mat of prostrate stems attached to the sandy soil. The erect fertile stems, about five centimetres high, occurred at nearly every branch at approximately five-centimetre intervals. *Polytrichum* moss and tiny creeping willow (*Salix repens*) accompanied the clubmoss. The area is flooded during winter, forming a shallow lake that dries out during the summer months. Piet also told us that *Huperzia selago* formerly grew on a low bank alongside the *Lycopodiella* and that it would be nice to refind it, although he did not anticipate any success. However, an offer of apple cake was sufficient for Wim to spot a small tuft and eventually several other small colonies were found under the heather. Most plants had bulbils and hopefully the plants will persist here. A few small plants of *Osmunda regalis* occurred on the bank and *Thelypteris palustris* was seen in permanent water nearby. An interesting non-fern that was new to me was the minute *Centunculus minimus* (chaffweed), which formed insignificant one-centimetre high greenish tufts on a sandy trackside. I am not sure who spotted it but they must have the eyes of a hawk!

Our final stop for the day was at a *Picea sitchensis* plantation (52°47'21.2"N, 5°47'12.3"E). The network of ditches held large quantities of *Asplenium scolopendrium* and good colonies of *Polystichum aculeatum*. In one place a large *P.* × *bicknellii* grew on a ditch bank with many *P. aculeatum*, however the nearest known *P. setiferum* occurred over 70 metres away so it was a puzzle how the hybrid had arisen. Also at this site was yet another surprise, *Gymnocarpium dryopteris*. It was quite frequent, spreading from the ditch banks onto the woodland floor and forming large colonies. Many of the older fronds had been skeletonised by sawfly larvae. Piet has published a detailed paper on the ecology of oak fern at this and other sites in the Netherlands (*American Fern Journal* Vol. 100 (2): 110-125 (2010)).

After such a full and satisfying day we expressed our sincere thanks to Piet for his excellent leadership and deep insights into the ecology of the area he clearly loves.

Sunday 25th – Schokland, Oostvaardersdijk & Purmerbos

Peter Blake

The morning began with rain, which ceased around 9.30. After a leisurely breakfast the group travelled west from Muggenbeet to Schokland (52°38'09.9"N, 5°46'38.1"E). This World Heritage Site was originally a small fortified island in the sea until the land was drained in 1942. It now stands a few metres above the surrounding flat polder. From there we drove to Oostvaardersdijk, the marshy polder just south of Lelystad Haven (52°29'34.2"N, 5°24'03.6"E), which has been turned into a huge reserve for indigenous and migrating water birds. The object of this visit was to see if a colony of *Equisetum telmateia* had recovered

from being covered in sand some years ago, at the time of widening of the dyke between the polder and the sea. Indeed, there was a thriving colony of *E. telmateia* and also *E. arvense*.

After lunch the group travelled to Purmerbos, north of Amsterdam (52°29'41.0"N, 4°58'54.6"E). Here we met Koos Ballintijn who guided us through a poplar wood, planted in 1985-89, growing on sand and clay. Nettles and brambles abounded but *Dryopteris borrieri*, *D. dilatata*, *D. carthusiana* and *D. filix-mas*, along with *Athyrium filix-femina* and *Asplenium scolopendrium*, were found amongst the rotten branches from previous tree-felling. A short walk away was a wetter, darker area beneath dense short trees that was too dark for nettles to grow. Here there was thought to be *Oreopteris limbosperma* (a new find for this wood) but this proved to be *Matteuccia struthiopteris*. Also found were *Polystichum setiferum*, *Thelypteris palustris* and a good example of *D. affinis* 'Cristata'. A possible example of *D. cambrensis* was found and is to undergo DNA analysis at Leiden University for confirmation.

After a walk back to the mini-bus along canals of the yellow fringed water-lily, *Nymphoides peltata*, the group returned to Schiphol and the UK.

Kemsing & St Mary Cray, Kent – 26 October

(Leaders: Julian Reed & Pat Acock)

Paul Ripley & Pat Acock

Tearing ourselves away from Julian Reed's fantastic collection of fern varieties with considerable reluctance, about 16 members left for a marsh fern site recently rediscovered by Julian. This unprepossessing wet woodland site to the west of Childsbridge Lane, Seal (51/546575), comprises a boggy area near the junction between Gault Clay and Folkestone Sands, where drainage has been impeded by raised ground to the south. Apart from *Thelypteris palustris*, which was occasionally abundant and occupying an area some 50 metres by 20 metres, we also found *Athyrium filix-femina*, *Dryopteris dilatata*, *D. filix-mas* and *D. carthusiana*. Geoff Kitchener, the Vice-county Recorder, whose presence we greatly appreciated, was particularly pleased with this find.

We then headed north onto the (chalk) North Downs escarpment at Row Dow (51/542598). *Asplenium scolopendrium* and *Polystichum aculeatum* grew on the roadside banks, but we also saw *Pteridium aquilinum*, *Dryopteris filix-mas* (including a strange plant with a dark spot at the base of the pinnae), *D. borrieri* (including the foliose form), *D. dilatata*, *D. carthusiana*, and a 'classic' *D. affinis*. Undoubtedly the highlight was a magnificent *Polystichum*, later confirmed as *P. × bicknellii*.

We headed eastwards into Kemsing Down Nature Reserve (51/550596), finding *Polystichum setiferum* along the way to a delightful dell. Here we additionally saw *Polypodium interjectum*, again the foliose form of *D. borrieri*, a bifid form of *Asplenium scolopendrium*, *Athyrium filix-femina* and a possible candidate for *D. × critica*, which, in the absence of salvageable spores, could not be determined.

Pat and Grace Acock and Karen Munyard very kindly provided us with a superb lunch at the Acock residence in St Mary Cray. Some people who were unable to attend the field meeting had arrived early and were shown around the garden and greenhouse, the main party arriving a little later. After the garden tour and plant exchange, we were entertained to presentations by Pat on the GEP excursion to Corsica, Paul Ripley on the BPS East Anglia/South-East group trip to The Netherlands, Tim Pyner on his second visit to South Africa, and Roger Golding on the BPS Outer Hebrides meeting.

During the tea break, John Edgington kindly signed copies of his new book *Who found our Ferns?* (BPS Special Publication No. 12). To round off the day, Ashley Basil gave an envious audience an account of his trip with his wife Jo to Juan Fernández Island, which the wider membership will be able to hear at the AGM.

We were pleased to meet a few newer members and hope they enjoyed the meeting as much as the regulars did and will come again.

SOUTH WALES AND THE BORDERS

Garden visits, West Midlands & Worcestershire – Thursday 23 May

Sue Dockerill

We met on a blustery morning in the garden of Clive and Doreen Brotherton near Dudley. After warming up with a hot drink, we set out around this small but fascinating garden. The large number of raised, gravelly beds attested to Clive's interest in alpinines in general and xeric ferns in particular. Growth was only just starting in the open ground, but *Drynaria sinica*, *Polypodium scolopendri*, *Pellaea rotundifolia* and an *Asplenium aethiopicum* variety were all in leaf and looking good. There were large patches of various *Cheilanthes* species, which were just throwing out new fronds. Clive said these had been outside for a few years, having outgrown their allotted space in pots.



photo: Beverly Cotterill

Alan Ogden's garden

Jennifer Ide, Sue Dockerill, Christine Mullins, Marie Paginton, Roger Norman, Olive Mason, Andy Buchan, Angela Tandy, Bob Brown, Roger Golding, Martin Rickard, Jude Lawton, Sue Norman, Brian Dockerill, Peter Blake, Alan Ogden

There were also several areas 'under glass'. Just inside a lean-to greenhouse an attractive *Coniogramme omeiensis* caught my eye, while an inner section had an impressive wealth of ferns in pots. To the *Pellaea* and *Cheilanthes* seen outside, were added adiantums and davallias, all genera of which Clive had an enthralling collection. It was the first time I had seen the attractive *Paraceterach muelleri*, like a downy *Pellaea rotundifolia*. Also protected, were a raised plunge bed with a glass canopy and a small free-standing greenhouse. In these were more xeric ferns including two pyrrasias, *Pyrrasia stigmata* and *P. eleagnifolia*. Amid a variety of *Adiantum* sporelings were two lovely *Nephrolepis* varieties, which were soon snapped up when Clive generously offered some souvenirs.

We then dragged ourselves away to the garden of Alan and Val Ogden near Hopwood in Worcestershire, where Alan showed us the woodland ferns he was growing under *Magnolia* and *Sorbus* in his front garden. Along with *Dryopteris crassirhizoma* and *D. pulcherrima* were a beautiful *Polystichum* × *dycei* and a *P. setiferum* variety with very variable fronds, from which the variety *P. setiferum* 'Ray Smith' had been selected by bulbils.

Going through to a shady standing-out area, we saw several ferns in pots including a well grown *Rumohra chilensis* and two interesting equisetums – *Equisetum* × *bowmanii* and *E. hyemale* subsp. *affine*, both good foliage plants. Beyond was a lawn, which Alan has kept as a wild flower area since orchids started appearing and in which *Ophioglossum vulgatum* was throwing up fertile fronds. This is mown in September and again in late winter to allow the early plants space. Nearby were some interesting polystichums – two types of *Polystichum proliferum* hybrid raised by Anne Sleep, and an unusual crested form of *P. aculeatum*.

Lower down were just too many ferns to list, but a damp bed with *Gunnera manicata* on which toothwort was growing caused much comment. In this area were several plants originating from the collection of Robert Whiteside, including *Dryopteris dilatata* ‘Crispa Whiteside’ and a particularly beautiful tripinnate form of *Polystichum setiferum*. These plants linked with the fern book collection that Alan had laid out indoors for us to look at while we enjoyed refreshments. We saw a photo of Robert Whiteside’s original membership card, which Alan had donated to the Society alongside a copy of the author’s *Ferns of the English Lake Country*.

So, a thoroughly enjoyable and varied day thanks to Clive and Doreen and to Alan and Val, all such welcoming and generous hosts and such good gardeners!

Clydach Gorge, Monmouthshire – 17 July

Brian Dockerill

Twelve members met in the car park near the site of the former Clydach Ironworks (32/230134) on what was clearly going to be one of the hottest days of the on-going heat wave. We had planned to drive up the side of the gorge to a car park nearer our first site, a disused quarry at 32/220124. However, a decision to walk up instead was soon regretted even by the proposers! On the road up we passed a wall with plentiful, though rather shrivelled, *Asplenium trichomanes* subsp. *quadrivalens* and *A. ceterach*. Passing into woodland we saw *Athyrium filix-femina*, *Cystopteris fragilis*, *Dryopteris affinis*, *Polystichum setiferum*, and *P. aculeatum*. Entering the quarry past copious *Asplenium trichomanes* subsp. *quadrivalens*, we soon spotted a small *Gymnocarpium robertianum*, followed by many more on spoil heaps within the quarry itself. Additionally, we found plentiful *Equisetum arvense* and *Asplenium scolopendrium*, plus a *Polypodium*, tentatively assigned as *P. interjectum*.

A short climb from the quarry placed us on the site of the Merthyr, Tredegar and Abergavenny Railway of 1862, formerly Bailey’s Tramway of 1821, and now a cycleway. On the wall of a short section of viaduct we found, in addition to the former *Asplenium*, plants of *A. ruta-muraria*. Following the track past plentiful *Pteridium aquilinum* and a much more admired area of *Geranium sanguineum*, we reached our first disused tunnel entrance at 32/218121. To our dismay we found barriers around it and workmen busily bricking up the entrance although, fortunately, the track itself was open and we were able to continue to the other end of the tunnel at 32/215121. Here grew *Asplenium trichomanes* subsp. *quadrivalens*, *Cystopteris fragilis*, *Gymnocarpium robertianum* and *Polypodium interjectum*. In a nearby wet area *Equisetum arvense* and *E. fluviatile* were both found. Between the tunnel entrances we had passed over a wooden bridge where we were surprised, in such a generally alkaline area, to see *Oreopteris limbosperma*, and had also added *Asplenium adiantum-nigrum* and *Dryopteris dilatata* to our list. Usefully, we also found *Dryopteris filix-mas* alongside good specimens of both *D. affinis* and *D. borrieri*, permitting a good discussion of the distinguishing features of these.

After returning to the cars and having lunch, we visited the Clydach Ironworks site where the only fern interest was an epic battle between mankind and *Equisetum telmateia*. From earlier visits we knew that the fern had withstood several attacks by strimmer, and now

clearly a flame gun had been deployed, but we were all pleased to see the *Equisetum* still growing lustily.

We then drove to the now closed Drum and Monkey pub at 32/216126, where we parked for the short walk down into the gorge itself. At the footbridge, Devil's Bridge, we found plentiful *Polystichum aculeatum* and *P. setiferum* but were disappointed not to be able to find hybrids. In addition to *Cystopteris fragilis* on the bridge itself, the commonest ferns in the area were *Asplenium scolopendrium*, *Athyrium filix-femina*, *Dryopteris borrieri* and *D. dilatata*. A hot but very enjoyable day was completed by the discovery of not only the bird's-nest orchid, *Neottia nidus-avis*, but also the extremely rare yellow bird's-nest, *Monotropa hypopitys* subsp. *hypophegea*.

Forest of Dean, Gloucestershire – 2 October

Brian Dockerill

For the last meeting of the year fourteen of us met at the west end of the village of Upper Soudley at the start of the Soudley Valley Rural Geology Trail (32/655 104). *Polypodium cambricum* had been mentioned as growing here, and we were interested in looking for this as a BPS National Meeting on the site in August 2000 (*BPS Bulletin* Vol. 5 No. 5 p. 229) had been too early in the year to be conclusive.

As we progressed along the trail we were soon able to find *Asplenium scolopendrium* and *A. trichomanes* subsp. *quadrivalens*, *Dryopteris filix-mas* and *Pteridium aquilinum*. Further along, *Athyrium filix-femina*, *Polystichum aculeatum* and *P. setiferum*, *Dryopteris affinis*, *D. borrieri* and *D. dilatata* were added to the list. Finally, and shortly before turning back at a bridge over the brook, we found *Cystopteris fragilis*, clearly identifiable although in the process of dying back this late in the season. Here we also found several polypodies, one clearly *Polypodium vulgare* and several good colonies of *P. interjectum* but no plants we would assign to *P. cambricum*.

We then climbed to a quarry where, along with some species seen previously, we found several interesting forms of *Polystichum setiferum* approaching that known as 'Divisilobum'. There was some discussion as to the likely origin of such distinctive plants. On the one hand, although we had found abundant *P. aculeatum*, only one plant of *P. setiferum* had been seen and this quite a distance away. However, if they were of garden origin, how they had arrived in this site far from any vehicular access was a puzzle. Returning to our starting point by a higher route we clearly moved from the lower alkaline conditions as *Blechnum spicant* became common.

After lunch at The Rising Sun in Moseley Green we moved to near Cannop Ponds (32/607110), well known as one of the few sites for *Equisetum sylvaticum* in the area. However, we were dismayed to find that the plants, recently luxurious over a considerable area, had been crushed and the whole area churned up. The culprits were clearly wild boar using the site as a wallow. Fortunately we found that outliers of the colony further up the stream were unharmed. Amongst other plants found nearby were *E. fluviatile*, *Oreopteris limbosperma* and considerable quantities of *Dryopteris carthusiana*. *D. dilatata* was also present and several plants seemed to be good candidates for *D. × deweveri* although these have not been confirmed.

Our next stop was in Coleford, at a railway bridge (32/572105) where we saw plentiful plants of *Adiantum capillus-veneris* growing on the bridge buttresses. Those of us who had been on the Northamptonshire and Derbyshire meeting in 2011 were struck by the similarity of the site to the one shown to us by Matt Busby near Daventry (*BPS Bulletin* Vol. 7, No. 4 p. 302). Finally we moved to the Clearwell Caves, where the attractions were both the tearooms and the fine colony of *Asplenium trichomanes* subsp. *pachyrachis*. An interesting end to our season, thanks in large part to Howard Matthews and Roger Grounds for their suggestions for sites, as well as to previous reports in *The Bulletin*.

WESSEX

New Forest, & Sir Harald Hillier Gardens, Romsey, Hampshire – 13 July
Jo & Ashley Basil

On a blisteringly hot day, eleven members met at Crockford Bottom car park (40/350989), between Beaulieu and Lymington in the New Forest. We found *Ophioglossum azoricum*, and across the road *Pilularia globulifera* showing its pills (spore-cases). We also found *Polypodium* on the oak trees, but did not identify the species. There was also a poor specimen of *Osmunda regalis* by the stream and we looked at the UK rarity, *Ludwigia palustris* (Hampshire purslane).

On the way back to our house in Boldre we stopped close by in Pilley Hill (40/322981). Down the Shallows lane we saw many variants of *Polystichum setiferum* and some superb *Asplenium scolopendrium*. Pat Acock confirmed Ashley and Mike Rowe’s find of *Equisetum* × *litorale*, and one of its parents, *E. arvense*, was also present.

After lunch around our table, we reconvened at The Sir Harald Hillier Gardens near Romsey (41/378238). We saw some good *Osmunda*, *Woodwardia*, *Matteuccia* and *Athyrium*, and a superb clump of *Blechnum chilense*. We then had cream teas and left at about 5.30.

YORKSHIRE FERN GROUP

Moonwort survey, Redmire, Grinton, Yorkshire Dales – 25 May Barry Wright

The moonwort (*Botrychium lunaria*) survey continued with monitoring the ten fixed quadrats established in 2009 and the two quadrats added in 2011 that incorporated both adder’s tongue (*Ophioglossum vulgatum*) and moonwort. These are along the Grinton to Redmire road at around 44/039965.

The 2013 data show considerable variation between quadrats and between 2013 and previous years as shown in the table below. There really does not seem to be any pattern to the year-on-year changes, with moonwort in quadrat 230 more than doubling from previous years, but quadrat 267 having no emerging adder’s tongue spikes at all in 2013.

		Quadrat no.											Quadrat no.		
		230	231	232	233	236	322	323	324	325	326	Total	267	269	Total
Moonwort	2009	11	6	0	11	39	9	9	27	15	12	139	-	-	
	2010	20	10	3	27	75	22	4	24	17	11	213	-	-	
	2011	24	12	2	13	51	18	4	47	39	21	231	18	6	24
	2012	22	4	3	8	52	14	6	21	39	13	182	27	10	37
	2013	49	7	7	16	35	9	5	43	28	23	222	7	11	18
	Average	19	8	2	15	54	16	6	30	28	14		17	9	
Adder’s tongue	2011												3	3	6
	2012												8	4	12
	2013												0	6	6
	Average												4	4	

A new venture for 2013 was to use coloured cocktail sticks to aid counting and avoid missing specimens that could lead to under-recording. Basically each spike was marked with a cocktail stick and then the stick locations were plotted and the numbers counted. An example of this is shown overleaf with ‘Scale Bear’ to add a sense of proportion! She’s ten centimetres

tall sat down. Most of the sticks are behind her and to her right, with a couple of sticks, close together, in front.

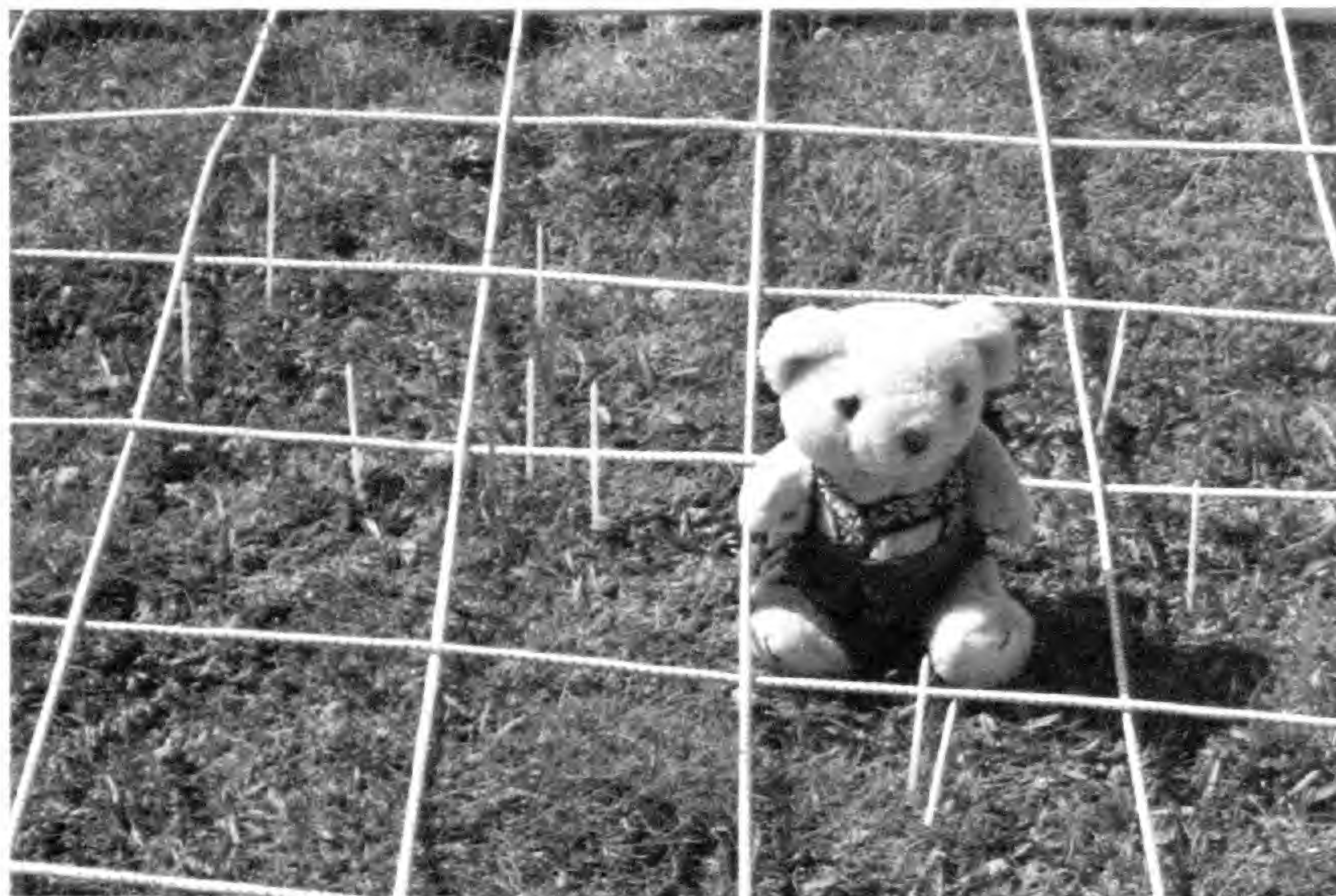


photo: B. Wright

A typical quadrat showing 'Scale Bear' and cocktail sticks marking moonwort locations

The distribution of spikes in a quadrat from year to year also continued to show that core areas remain core areas and outlier spikes are frequently thrown up in areas where there were no spikes in previous years. Outliers are taken to be spikes that occur more than ten centimetres from anything previously found.

Cautley Spout, near Sedbergh, Cumbria – 22 June

Bruce Brown

After a lovely week the weather finally broke on the day of our meeting. Five hardy souls joined me in lashing rain and gusty winds at the parking spot next to the Cross Keys café (34/698969). This was another joint meeting with the NW Group, hosted by them last year so Yorkshire's turn now.

Cautley Spout is named after the beck that spectacularly crashes down the head of a steep glaciated valley as a series of waterfalls and cascades, and in the process has carved itself a deep ravine, probably following a fault-line. It is lined with luxuriant plants and trees in the lower parts of the gorge, so ideal for fern enthusiasts who like a bit of mild scrambling. Following on from earlier BPS visits, we were hoping to find a good tally of species.



photo: B.N. Brown

Cautley Spout, Cumbria

The roadside had splendid clumps of *Dryopteris filix-mas* and *D. cambrensis*, and dropping down to the River Rawthey footbridge we added *D. dilatata*, *D. affinis* and *Athyrium filix-femina*. The path crossed a few flushes yielding *Equisetum arvense*, and then slowly climbed over rough grassland well populated by *Pteridium aquilinum*. We aimed for some big scree fans just off-path (34/685974) to see lots of *Cryptogramma crispera*, some young *Polypodium* fronds, nice clumps of *Dryopteris oreades*, and young fronds of *Gymnocarpium dryopteris*.

A big tree was our aiming point for the start of the gorge (34/683974). After a night's rain the beck was in good flow, but that didn't stop the intrepid ones splashing over to check out

some large *Polystichum aculeatum* and *Asplenium trichomanes* subsp. *quadrivalens* under the tree. A *Dryopteris* with dark reddish-brown scales caught our attention – probably an *affinis*, and possibly subsp. *paleaceolobata*, but too early to confirm. As we scrambled upstream we found *D. borrieri* and *Oreopteris limbosperma*. Checking under the rock overhangs and on the craggy outcrops we added *Cystopteris fragilis*, lots of *Asplenium adiantum-nigrum* and a few *A. ruta-muraria*.

The confines of the tree-filled rocky gorge were an absolute delight to explore and we were even blessed with a few rays of sunshine (not to last!) More scrambling led to a wet dripping rock with colonies of *A. viride* and *Selaginella selaginoides*. We crossed the rushing beck again to a rocky area under a shady tree covered with *Hymenophyllum wilsonii* and a large *Blechnum spicant*. It was too ‘midgey’ to stay here long, so we returned to climb a gully and exit the gorge onto the hillside, where the paved path provided an easy ascent, bypassing the waterfalls that had blocked further progress below.

Above the main falls there was an easy access point to the beck-side, another area rich in fern species mostly seen earlier. The polypody on the tree was confirmed to be *Polypodium vulgare*. A final climb up the paved path brought us level with the confluence of Swere Gill, which we reached via an adventurous traverse over steep hillside, to enter a magnificent amphitheatre below higher falls of the main beck (34/680975). The rocks were resplendent with large yellow globeflower (*Trollius europaeus*) and wood cranesbill (*Geranium sylvaticum*). A good colony of *Phegopteris connectilis* grew here and a small specimen of *Huperzia selago* was found.

This was the limit of our explorations and members eventually drifted back downhill. Mike Canaway and I took advantage of the improving weather to climb Yarlside (639 metres) hoping for more clubmosses but were unsuccessful. Our day totalled 24 taxa, so a good tally indeed; the only omissions from previous visits in 1974 and 1978 were *Diphasiastrum alpinum*, *Lycopodium clavatum*, *Dryopteris* × *complexa*, *Asplenium trichomanes* subsp. *trichomanes* and *Equisetum palustre*.

Ecclesall Woods and surrounding area, South Yorkshire – 20 July Paul Ruston

It was with some relief to the four of us who met at Whirlow Brook Hall Park (43/307829) that the morning was slightly overcast, with much cooler conditions than of late. Our objective was to visit the ancient and extensive woodland at Ecclesall, a suburb of Sheffield about six miles south-west of the city. We walked through the rock gardens where we saw many different ferns planted in groups of three or five, notably, *Adiantum aleuticum*, *Athyrium filix-femina* ‘Frizelliae’, *Dryopteris erythrosora*, *D. filix-mas* ‘Linearis’, *Polystichum acrostichoides* and *Asplenium trichomanes* subsp. *trichomanes*. Young plants of *Osmunda regalis* were seen in what looked to be a rather dry spot above a small pool. Great efforts had been made recently to rid the rock garden of invasive *Equisetum arvense*; the horsetail hadn’t entirely given up. A short walk took us into Stand Hill Woods where we deliberated over some ferns I had previously encountered; their morphology suggested possible *Dryopteris* × *deweveri*. Material examined microscopically by Bruce Brown confirmed this. *D. dilatata* was plentiful throughout the woodlands but *D. carthusiana* was not found.

Upon leaving the woods we headed for the lake, where *Equisetum sylvaticum* and *E. fluviatile* were known to be plentiful around the margin; not a single frond of either horsetail was seen. American skunk-cabbage (*Lysichiton americanus*) had spread invasively and was quite abundant. We took a detour into Whinfell Quarry Gardens, created and planted for the steel industrialist Samuel Doncaster in the early twentieth century, and conceived to resemble a Himalayan gorge. He bequeathed the gardens to the people of Sheffield for their enjoyment. The Friends of Whinfell Gardens have carried out a great deal of restoration work after many years of neglect by Sheffield Council. Several very robust looking *Dryopteris affinis* subsp. *affinis* were seen on the slopes of the gorge and

made a striking picture amongst the newly planted large-leaved rhododendrons. The many paths that traverse the slopes offer fine views over the gorge.

We returned to our cars and set off to the lumber yard (43/322824) to begin our walk through Ecclesall Woods, managed by the Woodland Trust, and a very active Friends of Ecclesall Woods who are engaged in many areas of research pertaining to this woodland and do a great deal of hands-on work. The woods cover an area of 130 hectares and are said to be one of the largest ancient woodlands in South Yorkshire. Archaeological sites indicative of past industrial activity can be found, the remains of pits and depressions suggesting that the production of white coal (for lead smelting) and charcoal was once widespread. The first ferns encountered were *Athyrium filix-femina*, *Equisetum arvense*, *Dryopteris dilatata* and our only *D. borrieri* of the day. Bracken (*Pteridium aquilinum*) was prevalent in drier areas and *Dryopteris filix-mas* quite abundant in places. To the left of the path leading to Limb Brook, a steep cliff and bank supported hard fern (*Blechnum spicant*) and a profusion of great wood-rush (*Luzula sylvatica*). As we reached a spot where the ground was much wetter we noticed that *Dryopteris carthusiana* was becoming the more dominant fern, with some plants appearing intermediate in form between this and *D. dilatata*. Spores microscopically examined later by Bruce Brown showed them to be *D. × deweveri*.

Millhouses Park, lying to the east of Ecclesall Woods was our next site (43/335831). The River Sheaf flows throughout the length of the park and once powered a mediaeval corn mill. Prior to the devastating floods of 2007 there had been a very healthy colony of *Asplenium adiantum-nigrum* on a stone wall that buttressed the river bank. Now, a single frond was emerging from the stonework. Slow progress, indeed! Fortunately the *Polypodium interjectum* (43/3340.8294) on a mortared stone revetment wall overlooking the river was thriving, with new fronds emerging from the mortar joints. *Equisetum arvense* was seen along a section of the river bank.

We took a short drive to Woodseats, parking alongside the Parish Church of St Chads (43/343827). *Asplenium ceterach* had colonised the brick front garden walls of the local houses. Many of the colonies were well established and several young plants were also seen. Other wall ferns seen were *A. ruta-muraria*, *A. trichomanes* subsp. *quadrivalens* and a very nice ramose *A. scolopendrium*. Black spleenwort (*A. adiantum-nigrum*) was growing behind the metal road name plate.

A final trek was made to see a very scarce fern in Sheffield: *Polystichum aculeatum*. It was well established on a steep, shaley bank in the ravine that leads up to Graves Park, one of Sheffield's most extensive and interesting parks (43/3477.8215).

The meeting concluded with a short visit to our home and garden for a well earned 'cuppa' and sticky bun.

Foxglove Covert Nature Reserve, Catterick Garrison, North Yorkshire – 21 July

Bruce Brown

This Reserve, accessed via the Catterick Garrison's army checkpoint (44/165975), must be the most secure and least vandalised in the whole country! Alison Evans and I led a Fern Walk at their BioBlitz weekend, which was well attended by the general public. It was an interesting afternoon for us, explaining the basic differences between the common ferns and horsetails abundant on the reserve. Hopefully everyone enjoyed themselves, became a little more fern-friendly and maybe wiser on fern ID.

On our morning recce we recorded 12 species, the less common ones being *Oreopteris limbosperma*, *Dryopteris borrieri* and *D. carthusiana*, and also *Polystichum aculeatum*, a new record for the site. We also managed to include a large colony of *Ophioglossum vulgatum* on our tour, which we wouldn't have spotted without prior help, as it was just outside the main reserve area (44/158968).



photo: C. Evans

Ribbleshead viaduct with Wharfedale in the background

Robert Crawford, Alison Evans, Mike Canaway (walk leader),
Bruce Brown, Jesse Tregale, Tony Moverley, Mike Wilcox

We met near the iconic Ribbleshead viaduct (34/765793), constructed by the Victorians to take one of Britain's now most famous railway lines from Settle, through the Yorkshire Dales and the Pennines, northwards to Carlisle. The area was busy with walkers attempting all or part of the 26-mile 'Three Peaks' walk. Indeed our initial route coincided with that of the walkers parallel to the railway line. Here we saw *Athyrium filix-femina*, *Equisetum arvense* and *E. palustre*. Near an underpass beneath the railway was *Pteridium aquilinum* and on its walls some *Asplenium trichomanes* subsp. *quadrivalens*. Near the Blea Moor signal box were *Cystopteris fragilis* and *Dryopteris filix-mas*, whilst *Equisetum fluviatile* was close by in a drainage ditch.

Further on, the Victorians had constructed a well-engineered aqueduct to take the large stream from the gill above and across the railway line just before its entry to Blea Moor Tunnel. The walls of the aqueduct provide a good habitat for ferns, being in close proximity to the water, the enclosing walls increasing humidity and giving shelter. Edging along the base of the walls members (without falling in) saw *Asplenium ruta-muraria*, *A. scolopendrium*, *A. trichomanes* subsp. *quadrivalens*, *Athyrium filix-femina*, *Cystopteris fragilis*, *Dryopteris dilatata* (juvenile), *D. filix-mas* and *Polypodium vulgare*. Immediately above the aqueduct our route diverged from that of the walkers to enter the deeply incised gill, punctuated by waterfalls as it descends from the flanks of Wharfedale, the highest of the 'Three Peaks' at 736 metres (2,414 feet). The gill almost immediately disappears from view of the main path and hence is hidden and unknown to the majority of walkers visiting the area. Its delights soon unfold as a high waterfall enclosed by cliffs and steep ground appears in the distance. This was our next target, though the approach was somewhat tricky with rugged sections complicated by the stream dividing into two branches near the waterfall, necessitating a crossing of both to see all the ferns. Fortunately the stream was not in spate so this was accomplished without mishap. We were rewarded by a good selection of ferns benefiting from the spray from the waterfall and the sheltered habitat: *Athyrium filix-femina*, *Asplenium viride*, *Blechnum spicant*, *Cystopteris fragilis*, *D. borrieri*, *D. dilatata*, *E. arvense*, *Oreopteris limbosperma*, *Polypodium vulgare*, *Polystichum aculeatum*, *Pteridium aquilinum*

and *Selaginella selaginoides*. Appreciating the beauty of the surroundings and protected from the winds on the open fell, this was a good spot to enjoy lunch.

Suitably restored, we scaled the steep ground near the waterfall on a short detour around the main cliff where we re-joined the course of the stream to climb upstream towards a succession of smaller waterfalls. En route to these was a steep crumbly cliff with distinctly layered strata out of which were growing small plants of *Phegopteris connectilis* together with further examples of *Asplenium viride* and *Dryopteris borrieri*. Near one of the small waterfalls were good examples of *D. cambrensis* and on a small cliff at the edge of the waterfall pool was a fine colony of good-sized *Phegopteris connectilis*. A tricky stream crossing where the pool cascaded away below was required to see the plants at close quarters but it was worthwhile for those who did. As my recce visit had not revealed any additional fern taxa higher up, we traversed the moorland to re-join the walkers' path for an easier descent to the starting point.

Before returning home, Bruce took us to a small roadside lay-by (34/760788) where he had spotted about 20 plants of *Ophioglossum vulgatum* growing with *Neottia ovata* (formerly *Listera ovata*) in long grassland, rounding off a nice outing for all concerned.

Wortley & Bradfield, north-west of Sheffield, South Yorkshire – 7 September

Bruce Brown

Four members met on a nice sunny day on the outskirts of Wortley village, where the Trans-Pennine Trail passes through following an old railway line that once linked Sheffield with Penistone (43/299993). We headed north along the Trail for a kilometre through a steep-sided, mostly tree-shaded cutting, finding *Equisetum arvense*, *Athyrium filix-femina*, *Dryopteris filix-mas* and *D. dilatata*. A striking *Dryopteris* caught our eye that was checked later for a *complexa* hybrid, but turned out to be fertile, so a *D. borrieri*.

We returned to our starting point and continued south-west through a field with *Pteridium aquilinum* to cross the River Don at a footbridge adorned with *Asplenium scolopendrium*. We reached a fishing lake busy with anglers and 'keep out' notices, but managed to explore its adjacent dam walls and foundations of Tin Mill Rocher, the site of a long-gone sheet-metal industry, but nothing new turned up. Further along the path we did, however, find *Dryopteris affinis*, *Polystichum setiferum* on a steep bank and a 'foliosum' type of *D. borrieri*. A large crag looked promising but was too dry.

Agden Bridge (43/243940) was the next location, several miles away near High Bradfield along narrow roads, tricky to navigate, but we managed to re-group after lunch. There was a nice colony of *Equisetum sylvaticum* by our parking lay-by and *Blechnum spicant* was common hereabouts. We followed Agden Dike downstream for a little way until completely entangled in rhododendrons, but there was a really good wet flush area – a lawn of sphagnum moss, *Carex laevigata* sedge and *Equisetum palustre*, and then, where very boggy, some *E. fluviatile*, and *Oreopteris limbosperma* close-by. An old record for *Lycopodium clavatum* exists, but none was seen – the area is probably too overgrown nowadays.

Paul Ruston had one more site to finish the day, so we drove through Low Bradfield, where a cricket match was in progress and *Asplenium trichomanes* subsp. *quadrivalens* was spotted on a wall, to reach Blindsides Lane (43/246913). *Polypodium vulgare* was on the roadside wall. We took the woodland path down to Dale Dike Reservoir (which had been the site of a major Sheffield disaster in 1864 when the old dam broke to flood the valley below). Reaching the reservoir edge we checked some large fern clumps, finding *Dryopteris affinis* in one spot, then a large clump of a convincing *D. cambrensis*, rare in the Sheffield area. So a good finish to the day, having recorded 16 fern taxa.

Footnote. Some of the records from our two Sheffield meetings this year (and other outings) have been passed to the BSBI Vice-county Recorder, Geoffrey Wilmore, for inclusion in the Southwest Yorkshire Rare & Threatened Plants Register, which has been started in 2013.

GROUP OF EUROPEAN PTERIDOLOGISTS (GEP) EXCURSION

Northern Corsica, & Capraia, Italy – 8-11 May

Pat Acock

The British contingent of Andrew Leonard, Florida Connell, Paul Ripley and I had Sunday to Sunday flights and were able to have a couple of days in the field before the majority of the 41-strong party arrived. We welcomed a few new members to the GEP this year, including a lot of young French botanists, five Swiss pteridologists and Ben van Wierst, the leader of De Nederlandse Varenvereniging, the Dutch fern group. We also had Jose Luis Perezcalo, a young Spanish naturalist who was quick to learn the new ferns we encountered. As ever, Pascal Holveck had invited local rangers and so we were joined on the Friday by a very enthusiastic and experienced young French naturalist who had learnt his trade at Hull University and had spent a year on Guadeloupe. The excursion was mostly on the peninsular above Bastia, with the exceptions of one foray further south and an excursion eastwards to the Italian island of Capraia. The following account gives some of the highlights of the trip (*GEP News* carries an illustrated detailed report by R. Viane *et al.*)

On the Wednesday we ventured just a little way above our base at Sisco Marina on the east coast to work our way along the coastal rocks where we found among other ferns *Asplenium petrarchae*, *A. trichomanes* subsp. *inexpectans* and *Cheilanthes acrostica*. Further north, under the windmills near Mt U Carubellu, we were treated to further spleenworts on the serpentine rocks. These included *Asplenium obovatum* subsp. *lanceolatum* and *obovatum* and their hybrid, *A. obovatum* nothosubsp. *cyrnosardoum*. We concluded a successful day by seeing *A. balearicum* and *Cheilanthes maderensis* close to the beach at Barccagio opposite the island of Giralia.

The next day we headed westward up the valley by our hotel to see the only *Woodwardia radicans* on Corsica. We then drove on to a local town to walk up to the Col of St Jean. Fortunately our host, Jean-Charles Bertier, had arranged for two Range-Rovers to take us to the col. Unfortunately they were late and had to do several runs, by which time one or two of the hardier members of the party had already arrived at the top. Exploring the Cima di e Follicie we were delighted to see a number of ferns including some wonderful plants of *Dryopteris tyrrhena*. A couple of hardy souls walked the whole way back to the hotel.

Friday found us driving for a couple of hours south into the heartland of Corsica. Firstly we walked on the Jurassic limestone of Caporalino above the station, where we saw *Asplenium ceterach* and *A. trichomanes* subsp. *quadrivalens* and *inexpectans*. Driving on to Aiti we were shown *Dryopteris pallida*, very rare on Corsica (though surprisingly common on Sardinia). We then spent a very pleasant afternoon in the Asco Valley, where amongst other ferns we saw *Asplenium* × *heufleri* (*A. septentrionale* × *A. trichomanes* subsp. *quadrivalens*), *Cheilanthes tinaei*, *Cystopteris dickieana*, *Asplenium septentrionale* and *A. foreziense* and possibly its hybrid with *A. onopteris* (*A.* × *ruscinonense*).

On Saturday we sailed across calm seas to Capraia. On this delightful little island we split into groups and went our various ways, frequently bumping into other members of the party. The scenery was exquisite and we found the odd fern of special interest; most notably Rémy Prelli found a whole bank of *Asplenium balearicum*. If only the sea had been more calm on the way back. At our evening meal we thanked Jean-Charles and Valou Bertier for all their hard work in preparation by visiting the island twice. Then we said our farewells to friends old and new.

If you are interested in joining the GEP annual excursion please contact Prof. Ronnie Viane, Dept of Biology, Ghent University, K.L.Ledeganckstraat 35, B-9000 Ghent, Belgium. E-mail: Ronnie.Viane@UGent.be. Tel. & Fax: +329-2645057.

HORTICULTURAL SHOWS & OTHER EVENTS

RHS PLANT SOCIETY OPEN DAY AT WISLEY & HARLOW CARR – 20 April

Alison Evans

Following our successful stands at RHS garden open days in October 2012, we were keen to have stands at the Plant Society Open Day in April, and despite rather short notice we managed to find volunteers for both Wisley and Harlow Carr.



photo: J.M. Ide

**Roger Golding, Pat Acock, Peter Blake & Nick Lodge
at RHS Wisley**

Patrick Acock, Peter Blake, Roger Golding, Jennifer Ide and Nick Lodge manned the stand at Wisley, and despite the time of year managed to fill it with a good selection of ferns. Their day was fairly quiet, but they talked to several interested people and gave out some membership leaflets. They felt that the publicity for the event at the garden could have been improved.

Bruce Brown, Alison Evans and Ann Haskins looked after the stand at Harlow Carr. Again, publicity for the event in the garden was minimal, and the number of visitors was disappointing.

This did mean that there was plenty of time to talk to people who were interested, and also to the other exhibitors, though some exhibitors left soon after lunch because of low visitor numbers. Our demonstration of spore sowing attracted some interest, but unfortunately no new members.



photo: A.J. Evans

Ann Haskins & Bruce Brown at RHS Harlow Carr

The BPS committee was very pleased to be invited as the ‘guest’ Society to have a stand in the Plant Heritage (formerly NCCPG) marquee in 2013.

When Yvonne Golding, Gill Smith and Jude Lawton attended the first planning meeting in February, we were told that there would be eight National Collection holders plus ourselves in a relatively small tent, so space was at a premium. It was Plant Heritage’s 35-year anniversary, so a large centrepiece celebrating this would also have to be accommodated! It was a very informative meeting, as people were there to help us with signage, labelling and storage, and an RHS judge gave us tips for gaining marks towards the prestigious RHS medals. It was very pleasing to learn that Plant Heritage would pay for a lot of the accessories needed for a good display. A draft layout of the marquee was circulated and everyone was given the opportunity to query points or suggest alternatives; we were a bit disappointed to discover that we were squashed into what looked like a ‘pokey’ corner of the tent.



photo: B.D. Smith

BPS stand at RHS Hampton Court Flower Show

Yvonne Golding, Bryan & Gill Smith & Roger Golding before the Show started

We next had to source ferns for the display from the many members that had volunteered plants. As we only had a very small stand, many had to be left out, and also transporting plants from all over the country would have been a problem, so plants mainly came from Yvonne Golding, Julian Reed and Roger Golding. However, we were very pleased when Harvey Stevens, the Head of Savill Garden at Windsor, volunteered to lend us some large *Matteuccia struthiopteris* var. *pensylvanica* plants from their collection. They hold a National Collection of hardy ferns and Plant Heritage personnel had told them that we were exhibiting at the HCFS. We decided to go for nine of these plants, which turned out to be a very good decision as their two- to three-foot-long fronds gave the ‘wow’ factor to our display. After completing twenty or more RHS forms, we finally got all the details for the show. Passes for all days were very limited, and trying to ensure that we had enough people to man the stand each day (9.30a.m. to 8.00p.m.) turned into a logistical nightmare.

The weekend before the Show was a bit frantic, as we were all vying for space to bring in cars with display materials and space to stand all the plants as we made up the display. All exhibits had to be completed by Sunday evening, as judging would start early the next morning. All competitors had to be out of the tent whilst the judging took place, so Yvonne

Golding and Bryan and Gill Smith sat by the 'Long water' drinking Pimms in the glorious sunshine for two hours – it's a hard life! When we were finally allowed back into the marquee, we were very pleased to discover that we had won a silver medal! Feedback later in the day told us that we were only three points away from a silver-gilt; the area we had fallen down on was our 'interpretation'. Our posters weren't good enough for the judges, who expected the large colourful banners that seem to be in vogue for these types of shows. However, we did get an 'Excellent' mark for the plants, which were really spectacular and drew the eye of the public as they entered the marquee. The week was very hot, with temperatures above 30°C every day, so in the end we were very pleased with our 'pokey little corner', as it turned out to be the coolest part of the tent, with a gentle breeze blowing in most of the time. We had to water and mist the plants at least three times a day but without that little breeze they would have wilted very quickly.



photo: B.D. Smith

Silver medal for BPS stand at RHS Hampton Court Flower Show

We enrolled twelve new members, including our youngest ever – an eleven-year-old boy from central London who already had his own fern garden! Not only the very different forms, colours and sizes of the ferns attracted people to our stand BUT as usual, the word 'Pteridological' drew many comments and openings for discussion. It was amazing the number of people from many different corners of the world who really enthused and asked questions about ferns, and how many loved to see them in their gardens. It was an experience not to be missed, but it was a lot of hard work and involved standing around for hours on end, so I do not think we will repeat it for some time!

Many thanks to all the members who volunteered to help and especially to the select few without whose time and commitment this event would not have been possible.

BIG NATURE DAY, NATURAL HISTORY MUSEUM, LONDON – 13 July

Alison Evans



photo: A.J. Evans

Big Nature Day at NHM, London Beccy Middleton, Alison Paul & Peter Blake

For the second year running, the BPS had a stand at the OPAL Big Nature Day at the Natural History Museum. This is a great opportunity to engage with the general public of all ages, as well as with members of other natural history societies. Like last year, it was a baking hot day, but thanks to the organisers, this year we were in a shady spot. Learning from last year, we concentrated on the fern life-cycle,

and dropped activities such as quizzes that take too long for the people passing by. We had a small display of ferns and three microscopes, as these seem to draw people in. Peter Blake brought in a box of prothalli with new sporelings just emerging – this was a revelation to many people, and viewing them under a low-power microscope had a great ‘wow’ factor. We also had a high-power microscope set up with *Equisetum* spores that ‘danced’ when breathed on gently. It raised a smile for most people when they saw the elaters suddenly curl up and then unwind again. Our second high-power microscope focused on sporangia and spores, so that people could see for themselves the structures illustrated on our leaflet, ‘The Private Life of Ferns’. Peter Blake, Alison Paul and Beccy Middleton volunteered at short notice to help Alison Evans and Jenny Mitchell set up and look after the stand. We were busy talking to people all day, and although we didn’t attract any new members as far as we know, we felt that a lot of people had a much greater awareness of ferns as a result.

SOUTHPORT FLOWER SHOW – 15-18 August

Michael Hayward

This year the layout of the Societies’ tent was changed, with all of the society stands around the perimeter and the competitive displays in the centre. The sun shone on the first two days of the show and attendance was significantly better than in recent years. The theme of the show was ‘Pride’ and we displayed a poster illustrating our pride in the heritage of the BPS as a backing to our display. As always, demonstrations of spore-sowing proved an attraction for visitors. We were again awarded a silver-gilt medal for the display.

In the competitive section the number of classes had been reduced. The number of entries was higher than in the past few years and a new class for three ferns of any one genus proved to be the most popular with entrants, as it allowed them to enter ferns that did not readily fall within other classes. It was won by Brian Russ for three excellent specimens of *Cheilanthes*. Brian also won the BPS challenge trophy (class 8), Robert Crawford winning the Happiland trophy, having the most first prizes in classes 9-14. Martin Rickard judged.

This year’s winners of the competitive classes were:

- Class 8 Individual Championship and BPS cup – four British ferns (dissimilar), two foreign ferns hardy in Great Britain and two greenhouse ferns (dissimilar)
1st Brian Russ, 2nd Yvonne Golding, 3rd Michael Hayward (4 entries)
- Class 9 One foreign fern hardy in Great Britain
1st Robert Crawford, 2nd Harvey Shepherd, 3rd Brian Russ (6 entries)
- Class 10 One British fern; any species or cultivar:
1st Robert Crawford, 2nd Yvonne Golding, 3rd Harvey Shepherd (7 entries)
- Class 11 One greenhouse fern:
1st Robert Crawford, 2nd Yvonne Golding, 3rd Pauline Stevens (3 entries)
- Class 12 One *Asplenium scolopendrium*:
1st Robert Crawford, 2nd Audrey Smith, 3rd Brian Russ (3 entries)
- Class 13 One *Polypodium*:
1st Robert Crawford, 2nd Yvonne Golding (2 entries)
- Class 14 Three ferns of the same kind (genus); species or cultivars:
1st Brian Russ, 2nd Robert Crawford, 3rd Yvonne Golding (8 entries)

The pool of members serving on the BPS stand has been steadily increasing. This year we were particularly pleased to have Michael Radley and Barrie Stevenson who had travelled long distances to help out. My thanks are also due to Ann Haskins, Steven Coleman, Robert Crawford, Roland Ennos, Ann Gill, Yvonne Golding, Alec Greening, Rita Hardman, Ruth and Trevor Pearce, Harvey Shepherd and Robert Sykes. We always need more volunteers and an enjoyable day at the show is guaranteed whatever the weather! We aim to have four or more members on duty each day, with two manning the stand and the others exploring the show and it is a very sociable occasion. Sleep-overs can be arranged as necessary. The dates for the 2014 show are 14th - 17th August.

SECRETARIAL NOTES

Please note: names and contact details of all officers can be found on the inside of the front cover of this Bulletin.

ANNUAL GENERAL MEETING 2014 – The 111th AGM will take place on Saturday 12th April 2014 at The Natural History Museum, London at 2p.m.

SUBSCRIPTIONS 2014 – Subscriptions were due on 1st January and should be paid to the Membership Secretary, Alison Evans. Current rates are given inside the front cover of this issue. Cheques should be made payable to 'The British Pteridological Society'. Payment can also be made by **PayPal**, which is quick, cheap and easy to manage. Instructions are given on the renewal form. **Standing Order** forms are printed on the reverse of renewal forms and are also available from the Membership Secretary and the BPS website. Standing Orders may be paid on 1st January or 1st February. In either case, membership is deemed to be from 1st January to 31st December.

Members who do not amend their Standing Orders with their bank and pay at the old rate shall be notified that they will not receive the *Fern Gazette* until such time as their Standing Orders are updated. Members still paying even earlier rates shall be notified that their name will be removed from the Membership List until the Standing Order is updated or cancelled. Any monies received from old Standing Orders will be treated as a donation.

GIFT AID – Since 2003 the BPS has been a registered charity. This enables us to claim back from the Inland Revenue 20p for every pound paid in the annual subscription for each member who authorises us to do so. In 2013 we were able to claim (for 2012) for 207 members, which brought in £1,049. While this is obviously an extremely valuable addition to the Society's annual income, it could be considerably more if all eligible members authorised it. All that is required is a minimal amount of form filling and a second class stamp. **Even better, the form has only to be filled in once.** The small number of provisos is set out below:

1. Gift Aid is available only to members who reside in the UK.
2. Members on whose subscription Gift Aid is claimed must be paying income tax or capital gains tax at least equal to the amount claimed.
3. Members whose subscriptions are allowed as an expense in connection with their employment may not claim Gift Aid.



photo: Southport Flower Show

BPS stand at Southport Flower Show

Steve Coleman, Michael Hayward with silver-gilt medal, Stefan Buczacki & Robert Crawford

If the Inland Revenue allows us to claim relief on your membership subscription please authorise us to do so. It's the equivalent of a yearly donation to the Society of £5 for a full membership and £4.20 for an optional membership.

PUBLICATIONS BY AIRMAIL – Our journals can be sent by airmail to overseas members, provided that they advise the Membership Secretary and pay an additional subscription to cover airmail postage. See inside front cover for rates.

E-MAIL ADDRESSES – These are published in the Membership List “for members who have a relatively stable e-mail address and who keep up-to-date with their messages”. A supplementary list and amendments are published in the *Bulletin*. To have your e-mail address added, changed or removed, please contact the Membership Secretary by e-mail.

NOTIFYING CHANGES OF ADDRESS – Please inform the Membership Secretary of changes of address and telephone number. She is responsible for notifying any other officers and appointees who need to know.

CODES OF SAFETY, CONDUCT AND DECLARATION FORM – All members attending BPS field meetings should be aware of the Society's *Safety Code* (see 2012 *Bulletin* 7(5): 475), as well as the *Code of Conduct for the Conservation and Enjoyment of Wild Plants* (see 2012 *Bulletin* 7(5): 474), and are required to sign an annual Declaration form (circulated with the Autumn Mailing). Copies of these documents can also be obtained from the Meetings Secretary, Bryan Smith, or the BPS website.

PAYMENT OF EXPENSES – The Treasurer has *Rules for Seeking Reimbursement of Personal Travelling and Administrative Expenses* by Officers and Members acting on behalf of the Society. Forms for claiming these expenses can be obtained from the Treasurer.

COPYRIGHT – All contributors to the BPS journals and website are required to sign an agreement assigning ownership of copyright of the article, photograph etc. to the BPS. This has the aim of safeguarding the contributors' work from unlawful copying and use. It does not stop contributors from using their own work elsewhere provided that they acknowledge the original source of publication.

GREENFIELD FUND – This fund, set up as a memorial to one of our Society's great fern growers, Percy Greenfield, is used to finance approved projects, helping with the cost of necessary equipment, books and travel expenses. Percy Greenfield's interest leaned very much towards the non-scientific side of our activities and it is felt that he would have wanted this taken into consideration when decisions are made. Workers eligible for university or college grants and similar support are not therefore eligible for help from the fund. Anyone wishing to apply for this funding should contact the General Secretary.

CENTENARY FUND – This fund is used to promote the study of all aspects of pteridophytes – horticultural, scientific and educational, whether by amateurs, students or professional pteridologists. As such its scope is much broader and more flexible than the Greenfield Fund. Anyone wishing to apply for this funding should contact the General Secretary.

THE J.W. DYCE AWARD – This award was set up in 2007 to honour the memory of Jimmy Dyce who was a member from 1935 until his death in 1996. The seventh J.W. Dyce award will be made at the AGM 2014 to the author(s) of the best paper, article, book or other substantial piece of work published during 2013 in any of the three BPS journals, on the BPS website or as a Special Publication. The award, which is a cash prize of £100, is open to everyone, whether professional or amateur pteridologist, horticulturalist or fern enthusiast.

NEW PHOTOGRAPHIC COMPETITION – The BPS wishes to encourage members to take good photographs of ferns and fern-related items and make these available for the enjoyment of other members and the general public. This new annual competition is open to all members of the Society who have an interest in photography and wish to share their fern images with others. Entries (which must be previously unpublished photographs) will be displayed at the AGM, and winning entries will be decided by members at the AGM.

Winning entries will be included in a special feature in the *Pteridologist* following the competition. In addition, and after judging, any or all of the competition entries received may be displayed on the BPS website and in the Newsletter for general viewing. (All website images will be downgraded in resolution prior to display to discourage unauthorised copying.) Some entries will also be used in the BPS Fern calendar. Entries must be received by 31st March. See the last Autumn Mailing or our website for details.

MEMBERS' INFORMATION SERVICE – Members often require information and advice on many aspects of pteridophytes but are reluctant to ask or simply do not know where to obtain help. Queries from members on the identification or cultivation of ferns should be sent to the Horticultural Information Adviser, Matt Busby.

BACK NUMBERS OF JOURNALS – Holdings of back numbers of our journals, although not complete, grow each year by 4 to 6 A4-sized boxes and shrink by about ten journals. This is a great pity as I have to have a cull every so often to fit them in my loft. The loft is now totally full so the Society will have to decide how many of each volume to keep to create space for future years, especially as we have a few more Special Publications in the pipeline. If people reading this and thinking they would like to have a few more of these valuable sources of fern knowledge were to download the list from the web or write to me immediately before they forget I think we could move a few more. As a special incentive I am again willing to sell the first colour *Pteridologist* (Vol. 3) and index at £9 including postage. Try your best to empty my loft. *Pat Acock*. BackNumbers@eBPS.org.uk

FOREIGN FERN SOCIETY JOURNALS HELD BY THE SOCIETY – The Society exchanges journals with a number of other fern societies in the world. We have a collection from societies in America, Australia, India and the Netherlands. If members would like to browse these, please contact Tim Pyner (t.pyner@btinternet.com) who holds the stock.

READING CIRCLE – The Society operates a reading circle for the *American Fern Journal*, a quarterly publication containing much information for those seriously interested in ferns. The *Fiddlehead Forum*, which publishes many 'ferny' items of interest to the amateur grower, accompanies it. To receive these journals contact Tim Pyner (t.pyner@btinternet.com).

SPECIAL INTEREST GROUP: CULTIVARS – The Cultivar SIG welcomes anyone with a specialist interest in cultivars. They organise field trips, speakers and garden visits. For information contact Tim Brock (tim.brock108@gmail.com) or Julian Reed (julianreed@waitrose.com).

BPS WEBSITE – www.eBPS.org.uk (hosted by The Natural History Museum.) The Society's website is a major means of communication; it provides information for the membership, but is also a 'shop window' to present the Society and pteridology to the wider world. If you have views on what the website should provide and/or could help with content, please contact the Website Editor, Anthony Pigott. Good digital photographs of members involved in fern-related activities are particularly welcome, as are suggestions or contributions for wild sites, gardens and nurseries for *Where to See Ferns*. Do also use our public bulletin board or 'forum' for the discussion of all aspects of ferns and other pteridophytes – www.fernforum.net/bb.

E-BPS DIARY SYSTEM – On our website there is an eBPS Diary, enabling us to see all the Society's events on one calendar. With meetings happening all over the country it is only too easy for events to overlap; we hope the diary system is helping to alleviate this and proving to be a useful planner for members. The system relies on regular updates so please send details of your BPS events to the Publicity Officer, Liz Evans.

FERNS IN MEMBERS' GARDENS – 'Ferns in Members' Gardens' is live on 'Pteridowiki' www.fernforum.net/mediawiki. Lists of ferns that members of the Society grow in their gardens are being compiled. In part, this is to build up a picture of which ferns grow in the different conditions around Britain. However, it is not limited to outdoor ferns, nor is it

limited to Britain – contributions from members elsewhere in the world are welcome. When you contribute your list of ferns a general location (without detailed addresses) will be included together with contact details if you are happy for other members to see your garden. Browse around and see what you think. There are only a few contributions so far so to help build up a wider picture please contribute by contacting Roger Golding (rg@rogergolding.co.uk).

PRESERVING OUR FERN HERITAGE – Many BPS members have collections of ferns that they have built up over the years. Some will contain rare plants and cultivars that are no longer easily available. We feel that it is important to preserve these plants and collections where possible. Often, members give clear instructions as to how they want their collection to be dealt with if they are no longer able to care for it themselves, but this is not always the case.

Do you or a relative have a fern collection that can no longer be cared for? We have a network of volunteers around the country who can help in various ways, such as advice on how to maintain a collection, what value it may have, how to arrange sale of plants, or relocation to a public garden. Please contact Membership Secretary Alison Evans in the first instance, so that she can pass on your request to a volunteer local to you.

AMERICAN FERN SOCIETY – The AFS has had a reciprocal payment arrangement with the BPS for many years and this is available through their respective Membership Secretaries. See AFS advert on p.566.

ROYAL HORTICULTURAL SOCIETY – Our Society is affiliated to the RHS. This enables a limited number of members to enjoy certain privileges in connection with RHS Shows, competitions and services. Some RHS Journals are available free to members at indoor meetings. Further information is available from the Treasurer.

BRITISH WILDLIFE – Concessionary individual subscriptions to *British Wildlife* magazine are available to BPS members (www.britishwildlife.com). This excellent journal occasionally carries articles on ferns and reviews fern publications.

MERCHANDISE – Have you bought a BPS sweatshirt, polo shirt or fleece yet? These are all dark green with a small embroidered BPS logo in yellow. Other items, such as BPS ties, metal badges, ferny greetings cards, bookmarks, pens, calendars, mugs, jute bags and take-in-the-field fern guides, are also for sale. The BPS wallet folder is a new line. Can't find your order form? Contact the Merchandise Organisers or look on the website for details. The Organisers also welcome suggestions for new stock.

BOOKSALES – It has become more difficult to find second-hand fern books at reasonable prices, so if you are thinking of selling any of your books please consider first offering them to the Society. Frank Katzer would also be pleased to receive any donated or bequeathed books that could then be offered to members at affordable prices. Contact him by e-mail if possible.

PLANT EXCHANGE – This scheme enables UK and EU members to dispose of surplus ferns to the advantage of those who would like to acquire some different species and varieties. Most of the plants offered are young sporelings. A request form is enclosed with the *Bulletin* mailing inviting members to list ferns they wish to offer or indicate any they are seeking or merely to request a copy of the consolidated list when compiled. On receipt of the list, members contact one another using the details provided. Contact the Plant Exchange Organiser for further details.

SPORE EXCHANGE – The current spore list is published on our website or can be obtained from Brian and Sue Dockerill.

NURSERY ADVERTISEMENTS – Members with nurseries that offer ferns are reminded that they may place an advertisement in the *Bulletin*, *Pteridologist* and on the website free of charge in return for the inclusion of a note about the Society in their catalogues/websites. The Website Editor can include an image if required. If members wish their nursery to be included, in the first instance please contact the General Secretary.

PUBLICITY & MARKETING – The on-line newsletter *Fern World* is now well established and keeps members up-to-date with BPS news. Please send the Publicity Officer any ferny news or anything you want publicised. She has also set up our own BPS blog on Tumblr and we are on Facebook and Twitter. Please contribute by signing up.

On-line Newsletter: issuu.com/pterrythe-fern

Blog: bpsfernworld.tumblr.com/

Twitter: twitter.com/FernBPS

Facebook: facebook.com/pages/Fern-World/158140624207890

Pinterest: pinterest.com/fernworld/

Contact Liz Evans for further information.

EDUCATION – The Education Subcommittee would be very pleased to hear your ideas on how we can develop the educational role of the BPS. If you have information about any fern-related educational initiatives or resources that you have found useful please contact the Education Officer, Alison Evans.

FERN RECORDS – Members are reminded that records of ferns, horsetails, clubmosses and quillworts in the wild may be sent in the first instance to the BPS Recorder, Fred Rumsey, who will forward them to the Botanical Society of Britain and Ireland (BSBI), or members may like to contact the appropriate Vice-county Recorders directly. Recorders' addresses are available from the BSBI website or BSBI yearbook, which goes to all BSBI members; for those without access to the Internet or yearbook please contact the BPS Recorder for details. The BPS recording card is available on our website or directly from Fred.

FORTHCOMING EVENTS IN 2014:

RHS TATTON PARK FLOWER SHOW, 23rd-27th July – We last exhibited at this prestigious show in 2009. In 2014 we hope to have a stand for the second time. Contact Yvonne Golding.

SOUTHPORT FLOWER SHOW, 14th-17th August – Why not spend a few hours or a day helping to look after the Society's stand? You do not need to be an expert on ferns or fern growing, just prepared to spend a few hours or a day with us. Expenses are available, as well as free entry to the Show. If you grow ferns, why not consider entering your best specimens; Southport is one of the few shows with amateur classes for ferns. Details are available from Michael Hayward, 6 Far Moss Road, Blundellsands, Liverpool L23 8TQ; mhaywardL23@blueyonder.co.uk.

FERN COURSES IN 2014:

ROYAL BOTANIC GARDEN EDINBURGH, 14th June – Fascinating Ferns: a 1-day course. Tutor: Heather McHaffie. To book, contact RBGE education office 0131-248-2937 or e-mail education@rbge.org.uk.

FSC KINDROGAN FIELD CENTRE, Perthshire, 4th-7th July – Fern Identification: a residential course. Tutor: Heather McHaffie. To book, contact FSC on 01250-870150 or e-mail enquiries.kd@field-studies-council.org.

FSC BLENCATHRA FIELD CENTRE, Lake District, 17th-22nd August – The Fern Guide: a residential course. Tutor: James Merryweather. To book, contact FSC on 01768-779601 or e-mail enquiries.bl@field-studies-council.org.

FSC PRESTON MONTFORD FIELD CENTRE, Shropshire, 19th August – Field Guide to Fern Identification: a 1-day course. Tutor: Mark Duffell. To book, contact FSC on 0845-3307378 or e-mail enquiries.pm@field-studies-council.org.

FSC RHYD-Y-CREUAAU – DRAPERS' FIELD CENTRE, Snowdonia, 8th-11th August – Fern Identification: a residential course. Tutor: Chris Metherell. To book, contact FSC on 01690-710494 or e-mail enquiries.rc@field-studies-council.org.

ACS DISTANCE LEARNING – Home study fern course: Ferns BHT 314 – To book contact ACS on 0800-3284723 or see www.acsedu.co.uk/courses/plant-varieties/ferns-bht314-161.aspx.

ANNUAL GENERAL MEETING 2013

MINUTES of the 110th Annual General Meeting of the British Pteridological Society held on Saturday 6th April 2013 at the Royal Botanic Garden Edinburgh at 14.30 hrs.

IN THE CHAIR: The President, Prof. Mary Gibby.

PRESENT: Pat Acock, Peter Blake, Bruce Brown, Adrian Dyer, John Edgington, Alison Evans, Liz Evans, Mary Gibby, Tim Godfrey, Roger Golding, Yvonne Golding, Ann Haskins, Michael Hayward, Frank Katzer, Elise Knox-Thomas, Bridget Laue, Nicholas Lodge, Frank McGavigan, Heather McHaffie, Alison Paul, Tim Pyner, Michael Radley, Martin Rickard, Paul Sharp, Bryan & Gill Smith, Barrie Stevenson, Robert Sykes, Mike Taylor, Alastair Wardlaw, Maurice Wilkins.

Item 1 – APOLOGIES FOR ABSENCE: Shaun Barton, Jo Basil, Ian Bennallick, Matt Busby, Rob Cooke, Jonathan Crowe, Brian & Sue Dockerill, Alec Greening, Nick Hards, Jennifer Ide, Stephen Jury, Jonathan Lamb, Jude Lawton, Andrew Leonard, Dick & Anna Lincoln, Steve & Karen Munyard, Julian Reed, Paul Ripley, Matt Stribley.

Item 2 – APPROVAL OF THE MINUTES: Minutes of the 109th Annual General Meeting of the British Pteridological Society held on Saturday 14th April 2012 and published in the *Bulletin* (Vol. 7, No. 5) were approved and signed by the Chairman.

Item 3 – MATTERS ARISING: There were none.

Item 4a – REPORT OF THE GENERAL SECRETARY: This report by Yvonne Golding was published in the *Bulletin* (Vol. 7, No. 5). There were no comments.

Item 4b – REPORT OF THE TREASURER: The Society's accounts for 2012 were published in the *Bulletin* (Vol. 7, No. 5). The Treasurer, Gill Smith, reported that the increase in subscription rates for 2013 had led to some members resigning. She made a plea for members that had not done so to change their standing orders. She had changed the bank account from Bank of Scotland to NatWest, which was making her life a lot easier as she could go into a branch and sort out business face-to-face. Gill hoped eventually to move to an on-line NatWest account, 'Bankline Light', as payments could then also be approved on-line. She apologised for the lateness of the Autumn Mailing, which was due to having to wait for the new bank account details to put on the forms.

John Edgington asked why the Autumn Mailing was so much more expensive in 2012 than in 2011. Gill explained that in 2011 it was sent by e-mail, which resulted in a considerable saving. She also mentioned that the reference to note 13 was an error as there was no note.

Item 5 – OFFICERS' REPORTS: The Officers' Reports were published in the *Bulletin* (Vol. 7, No. 5). There were no questions or comments.

Membership Secretary. Mike Taylor echoed Gill's plea for members to change their standing orders, as many had been paid at the old subscription rates. He announced that he was standing down as Membership Secretary and thanked members for making his life so enjoyable; he wished his successor every success.

Fern Gazette Editor. Mary Gibby thanked Bridget Laue and Adrian Dyer for their hard work in getting review articles, and reported that the reviewers of the reviews had given very positive feedback, commenting on the high quality of the copy.

Publicity & Marketing Officer. Liz Evans reported that Posterous was closing down but that there was a new alternative – Tumblr – to host our Fern World blog. She would give more information in the next *Fern World* newsletter. Bridget Laue asked how many people subscribe to this electronic newsletter. It is distributed by e-mail but with limited success due to the number of old or wrong e-mail addresses. Liz provided a flier with information on our social media and how to register.

Item 6 – COMMITTEE APPOINTEES' REPORTS

The Committee Appointees' Reports were published in the *Bulletin* (Vol. 7, No. 5). There were no questions or comments.

All reports from items 4 to 6 were approved (proposer Tim Pyner, seconder John Edgington.)

Item 7 – ELECTIONS

President. Prof. John Edgington, after a year as President-elect, was now declared President. The new President thanked Prof. Mary Gibby for her service over the last three years.

Vice-Presidents. Rob Cooke had come to the end of his three-year term of office but was standing for re-election. Following a proposal by Yvonne Golding, seconded by Alison Paul, he was duly elected as Vice-President for a further three-year term. Our other Vice-Presidents are Matt Busby, Adrian Dyer, Roger Golding, Jennifer Ide and Robert Sykes.

Officers. Mike Taylor wished to stand down after six years as Membership Secretary; he was thanked for all his work. Alison Evans had volunteered to take on this role; this was proposed by Frank McGavigan, seconded by Alison Paul, and she was duly elected. The Committee Secretary post was still vacant following the sad death of Graham Ackers in 2012. The Committee are working on finding someone to take on this role. All other Officers were available for re-election, proposed by Frank McGavigan, seconded by Mike Taylor, and were duly re-elected en bloc. [General Secretary: Yvonne Golding, Treasurer: Gill Smith, Meetings Secretary: Bryan Smith, Conservation Officers: Heather McHaffie and Fred Rumsey, Project Officer: Anthony Pigott, Publications Secretary: Martin Rickard, *Fern Gazette* Editor: Mary Gibby, *Pteridologist* Editor: Alec Greening, *Bulletin* Editor: Alison Paul, Website Editor: Anthony Pigott, Education Officer: Alison Evans, Publicity and Marketing Officer: Liz Evans.]

Elected Committee Members. Having served their five-year term of office, Bridget Laue and Paul Ripley retired at this meeting. Ann Haskins had been nominated for the committee. The other existing members – Ian Bennallick, Stephen Jury, Frank McGavigan and Julian Reed – were all available for re-election. These five were unanimously elected/re-elected en bloc after being proposed by Robert Sykes and seconded by Frank Katzer. Nominations/volunteers were invited from the floor to fill any of the remaining five committee vacancies. Peter Blake volunteered and was proposed by Mike Taylor, seconded by Pat Acock and unanimously elected.

Committee Appointments. There were no changes to report.

Item 8 – Appointment of Independent Examiners. Dr Nick Hards and Mr Alex Storie had agreed to continue in this capacity, and Gill Smith thanked Nick for examining the 2012 accounts.

Item 9 – J.W. Dyce Award. Martin Rickard announced that this had been won by Georgina Snelling for her *Pteridologist* article on ferns of Paraguay entitled 'Familiar Ferns in a Far Flung Paradise', which was judged by the Publications Subcommittee to be the best published BPS contribution in 2012. Unfortunately she could not be present to receive her award of £100.

Item 10 – ANY OTHER BUSINESS

Funds from auction of Graham Ackers' books. Yvonne Golding asked members to think about how this money should be spent and to pass their ideas to the committee. Adrian Dyer felt that it should be used for something special, perhaps an annual 'Ackers Lecture', enabling us to fund an invited speaker.

Photographic competition. Yvonne Golding suggested we hold a photographic competition with a prize. The pictures could also be used in the BPS calendar.

Mary Gibby closed the meeting at 15.10.

Alison Paul

BPS ACCOUNTS FOR 2013

	2012	2013
ORDINARY ACCOUNT		
INCOME		
Subscriptions (<i>see note 1</i>)	£14,104.72	£17,712.32
Interest (<i>see note 11</i>)	£199.21	£92.84
Booksales (<i>see note 4</i>)	£1,459.62	£3,511.29
Special Fund - R.G. Ackers (<i>see note 8</i>)	n/a	£15,000.00
Merchandise (<i>see note 4</i>)	£1,257.43	£1,333.61
Inland Revenue Gift Aid (<i>see note 13</i>)	£897.00	£152.15
Publishers Licensing Society	£414.49	£557.37
Donations (<i>see note 5</i>)	£448.00	£139.31
Plant sales & Spore Exchange	n/a	£179.20
Prize Money (<i>see note 12</i>)	£250.00	£150.00
TOTAL INCOME	£19,030.47	£38,828.09
EXPENDITURE		
Pteridologist	£5,893.47	£5,518.66
Fern Gazette (<i>see note 10</i>)	£7,303.22	£5,789.10
Bulletin	£5,813.86	£6,076.20
Printing & Stationery	£1,117.00	£1,235.00
Administration & Postage	£750.93	£777.45
Subscriptions to Societies	£47.00	£85.00
Plant & Spore Exchanges	£72.36	£232.28
Meetings	n/a	£245.00
Merchandise	£383.05	£603.41
Trustees' Expenses	£868.20	£724.15
Booksales	£1,220.00	£843.72
Special Awards	£100.00	£100.00
Autumn Mailing	£2,753.55	£2,417.11
Credit Card Charges 2012 (PayPal 2013 <i>see note 9</i>)	£520.30	n/a
Computer Leasing (<i>see note 7</i>)	£434.38	£462.96
Promotion & Advertising (<i>see note 2</i>)	£184.78	£710.83
Insurance	£55.00	£60.00
Donations/returned overpaid fees (<i>see note 14</i>)	n/a	£321.10
TOTAL EXPENDITURE	£27,517.10	£26,201.97
Balance (income minus expenditure)	-£8,486.63	£12,626.12
Brought Forward from previous year	£29,207.29	£20,720.66
Total in Ordinary Account	£20,720.66	£33,346.78
CENTENARY FUND (Restricted Account)		
Interest (<i>see note 11</i>)	£46.29	£30.62
Interest brought forward from previous year	£1,203.02	£1,249.31
Grant (<i>see note 6</i>)	£0.00	£500.00
Donation (<i>see note 5</i>)	£0.00	£0.00
Total Interest	£1,249.31	£779.93
Capital brought forward from previous year	£5,583.73	£5,583.73
Total in Centenary Fund	£6,833.04	£6,363.66

GREENFIELD FUND (Restricted Account)

Interest (<i>see note 11</i>)	£15.50	£10.63
Interest brought forward from previous year	£1,220.80	£1,321.18
Grant (<i>see note 6</i>)	£115.12	£300.00
Donation (<i>see note 5</i>)	£200.00	£0.00
Total Interest	£1,321.18	£1,031.81
Capital brought forward from previous year	£1,051.00	£1,051.00
Total in Greenfield Fund	£2,372.18	£2,082.81

PUBLICATIONS ACCOUNT

Brought forward from previous year		£13,278.65
Income	£1,063.44	£3,474.90
Interest (<i>see note 11</i>)	£84.44	£59.50
Expenditure	£250.00	£4,275.57
Total in Publications Account	£13,278.65	£12,537.48

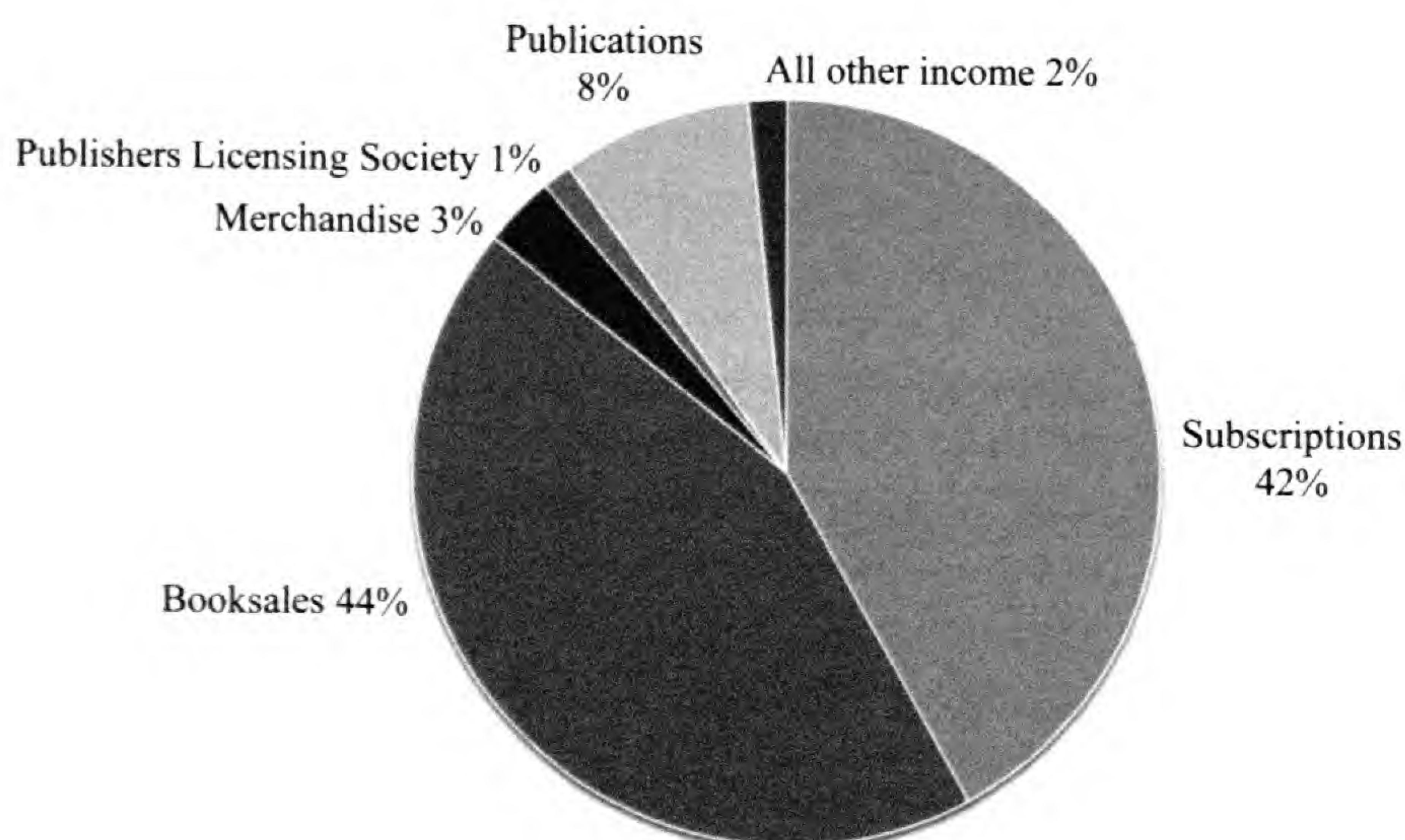
TOTAL FUNDS FOR YEAR ENDING 31 DECEMBER 2013

Ordinary Account	£20,720.66	£33,346.78
Centenary Fund	£6,833.04	£6,363.66
Greenfield Fund	£2,372.18	£2,082.81
Publications Account	£13,278.65	£12,537.48
Total Funds	£43,204.53	£54,330.73

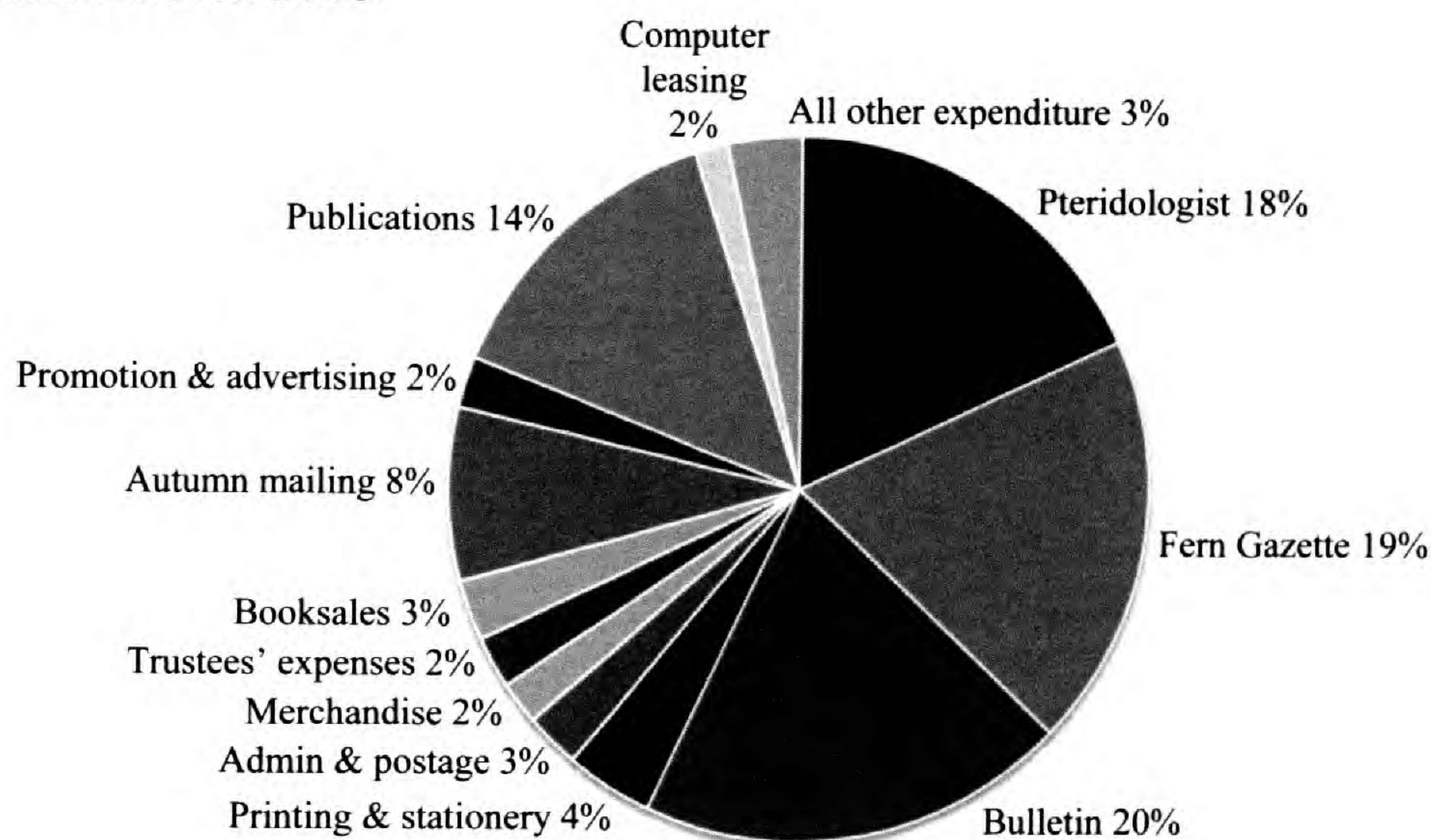
REPRESENTED BY

Charitable Organisations Investment Fund (COIF)	£39,568.09	£39,761.68
NatWest Bank & Others	£3,636.44	£14,569.05
Total Funds	£43,204.53	£54,330.73

INCOME 2013



EXPENDITURE 2013



NOTES TO THE ACCOUNTS

- The accounts reflect the subscriptions actually received in the year.
- The Society has been promoting and advertising the Society where possible via the RHS, BBC, county and national shows and public display days. Details of these appear in the *Bulletin*.
- The Society has stock: FSC Key to Common Ferns - 55 valued at £110. What's that Fern? booklet - 250 valued at £500.
Back issues of the *Bulletin*, *Fern Gazette* and *Pteridologist* valued at approximately £2,000.
Merchandising valued at approximately £2,500 & capital of £1,722.19.
Booksales - new and second-hand books valued at approximately £6,900 & capital of £3,795.19.
BPS Special Publications (no. copies): no.3. Cultivation and Propagation (198) £990;
no.4. History of British Pteridology (229) £916; no.5. BPS Abstracts & Papers (328) £1,312;
no.6. CD Rom - BPS Minute Book (14) £140; no.8. New Atlas of Ferns (28) £280;
no.9. Fern Books Before 1900 (216) £3,240; no.10. Occasional Paper of the BPS (19) £47.50.
no.11. CD of Fern Gazette Vols 1-9 (32) £480; no.12. Who Found Our Ferns? (225) £3,375.
- Full details of Merchandise and Booksales Accounts can be obtained from the Managers.
These accounts are checked annually by the Treasurer.
- Only the 'Interest' section of the Restricted Funds is available for payment as grants; these funds will be 'topped up' with money from donations from time to time.
- A Grant of £300 from the Greenfield Fund was paid to Sophie Walwin towards a trip to the USA to study xerophytic ferns - see article in the 2013 *Pteridologist* 5(6): 473-475.
A Grant of £500 from the Centenary Fund was paid to James Taggart towards a 'Study of the temperate pteridophytes in and around the Lao Cai Province of Vietnam'. Unfortunately, he disappeared whilst in Vietnam and, in spite of numerous searches, he has not been found.
- Computers for specific BPS officers' use are being leased from Dell Computers. When the lease expires, no further machines will be leased.
- Sales of books bequeathed to the Society by Graham Ackers raised a considerable sum of money. The Committee decided that £15,000 should be set aside towards a project in memory of Graham. Details will appear in the meeting minutes.
- All payments received via PayPal are net of charges. Charges for 2013 were £102.67, just 20% of the previous year's Credit Card charges.
- Two issues of *The Fern Gazette* were produced in 2013; these were the second 2012 issue plus one for 2013. The second 2013 issue was sent out in January 2014. The two 2014 issues will also be produced during the year bringing the *Gazette* up-to-date.
- Interest rates have still been very low. The COIF account interest rate started the year at 0.816%, but gradually decreased during the year, finishing on 0.379%, so only £193.59 interest was earned in 2013. This was the fourth year with little interest added to the funds.

12. £150 prize money was won at the Southport Show 2013. A Silver Medal was won at the Hampton Court Palace Flower Show but no prize money was awarded to exhibitors in the Plant Heritage Marquee.
13. Gift Aid - the amount shown was the remainder for 2012. A claim was submitted at the end of 2013 and it was confirmed by HMRC that £1,494.86 in Gift Aid would be paid into the BPS bank account in February 2014.
14. a. The Society donated £100 towards the cost of the search for James Taggart (see note 6).
b. Several members changed their standing orders to NatWest bank, as requested, but their banks also paid it to the Bank of Scotland - in some cases more than once! Some members gave the extra as a donation and others were reimbursed by the Society by cheque.

Gillian Smith, Treasurer

ACCOUNTS FOR THE YEAR ENDING 31 DECEMBER 2013

I have examined the accounting records maintained by the Treasurer of the British Pteridological Society. I certify that the Accounts are a true and fair view of the financial position of the Society.

Alexander Storie AIB Scot., Independent Examiner, Gordon, Berwickshire, 19 February 2014

REPORTS OF OFFICERS & COMMITTEE APPOINTEES FOR 2013

GENERAL SECRETARY – Yvonne Golding

In 2013 the first committee meeting of the year, due to be held at Manchester Museum, had to be cancelled because of severe weather. The 110th Annual General Meeting was held on Saturday 6th April at The Royal Botanic Garden Edinburgh. Changes in our Committee included the appointment of our new President, John Edgington, and Membership Secretary, Alison Evans. In addition, Ann Haskins and Peter Blake were elected onto the committee. This new committee met for the first time in May at RHS Harlow Carr, Harrogate and in October we were at The Natural History Museum in London. As you can see, your BPS Committee continues to travel around the country in order to run your Society.

At our AGM in Edinburgh the Publications Subcommittee awarded the sixth J.W. Dyce award to Georgina Snelling for her *Pteridologist* article on ferns of Paraguay, entitled 'Familiar Ferns in a Far Flung Paradise'. This award (of £100) is open to anyone who writes an interesting and informative article for any of our publications. Also at our AGM we held an auction organised by Frank Katzer to sell the fern books from the collection of the late Graham Ackers. This was a large and complicated job, but with the funds raised we hope to produce a digital fern flora, a project that Graham was very keen to support.

It is always a sad duty to report on the deaths of BPS members and other pteridologists. In 2013 these included Dr Jacobus Roux, or Koos Roux as he was known, who was curator at the South African National Botanical Institute's (SANBI) Compton Herbarium at Kirstenbosch; Jack Bouckley, who was President from 1991 to 1994 and also started the Leeds and District (now Yorkshire) Regional Group; Roy Copson who was an active member of the North-West and Yorkshire Regional Groups; Bridget Graham from Cornwall; Edith Kamermans who lived in Canada; Howard Davies of Wallington, Surrey, and Mogens Huge of Denmark. Obituaries are included in this *Bulletin*.

In 2013 I moved my ever-expanding fern collection to Thwaite Botanic Gardens (owned by The University of Hull) where BPS member Jean Marston (who has sadly died) grew ferns for 30 years. I hope to continue to 'fly the flag for ferns' at Thwaite by working closely with The Friends Group and participating in their events to promote the BPS. Are you

flying the flag? If you give talks about ferns then please let us know. Alternatively, if you would like to give talks but do not know where to start, please ask for a loan copy of our presentation.

In February I was invited by Jodrell Bank to attend a broadcasting of BBC Radio 4's Gardeners' Question Time. I took two guests, Roland Ennos and Shaun Barton. I was delighted but very nervous to discover that my question 'Do the panel grow and enjoy ferns in their gardens?' was chosen as the last one of the broadcast. My apprehension drifted away though as soon as Chris Beardshaw revealed that he loved ferns, that he had done a thesis on using ferns in garden design for his degree and proceeded to wax lyrical about them totally unprompted! The Chairman, Peter Gibbs, said he thought this was the first time they had ever had a question on ferns. Later in the year I heard a question on tree ferns on GQT from Cornwall. Subsequently, when BBC Radio Cambridge got in touch asking for a local gardener to talk about ferns in their gardening slot, I was delighted that Bryan Smith agreed; it was very good. So if your local radio station has a gardening programme, why not offer a five-minute question and answer session on growing ferns in your area; it is not as daunting as it sounds!

One of our aims in the BPS is to attend more shows. We already have an historic annual presence at Southport Flower Show, organised by Michael Hayward who once again was awarded a Silver-Gilt Medal. Last year I commented on there being a strong northern bias in terms of events and shows. In 2013 we put that right by exhibiting at the prestigious RHS Hampton Court Flower Show, earning a Silver Medal. This was a tremendous effort on the part of the team led by Gill Smith but the reward was 12 new members, including our youngest ever enthusiast, a 12-year-old boy who already had a fern garden. Judging by the interest we had in our stand, it certainly helped to raise the profile of ferns in the south! We urge all members to get involved with promoting ferns in your area. Many Garden Societies hold local shows; all that is required is a table, a few ferns in pots, our excellent give-away leaflets and an enthusiasm for growing ferns. Take advantage of our excellent Spore Exchange and our under-used Plant Exchange to help expand your fern collection. Attending shows is a very enjoyable way to help raise the profile of our Society.

Our regional groups continue to flourish, providing important records of ferns in the wild. This is a very valuable resource. I would like to encourage regional group leaders to continue and expand this important work by participating in the Photographic Recording Project, which involves visiting sites on a regular basis and keeping a photographic record. Further details are on the website.

The Meetings Subcommittee continues to organise diverse, interesting and exciting excursions. In 2013 I visited the Outer Hebrides with the BPS, which was a truly magical place. I also attended the excellent autumn indoor meeting at Harlow Carr.

The Education Subcommittee has been busy too, attending events at Wisley, Harlow Carr, and the Natural History Museum in London, attending BioBlitzes and leading fern walks. They are making links with other organisations such as the RHS, BSBI, NT, and most recently with the Field Studies Council.

Thanks to our Publicity Officer, Liz Evans, we are on Facebook and Twitter, we have a Blog, and our electronic newsletter and BPS calendar on our website keep us up-to-date with BPS news and events. In addition, Anthony Pigott reports that the BPS Fern Forum now has over 200 registered members.

In 2013, along with our regular excellent journals, including our largest ever *Pteridologist*, we saw the publication of our latest Special Publication *Who found our ferns?* by our President John Edgington.

We are beginning to see a small increase in our membership thanks to the diligent work of our Membership Secretary, Alison Evans. I should say it has been another successful year

but let's not get complacent. We would like all our members to help raise the profile of the BPS by supporting our activities and initiatives, by perhaps organising your own events or by giving talks, attending shows and, importantly, by encouraging friends and family to join the BPS and take an interest in ferns.

Happy Ferning in 2014!

MEMBERSHIP SECRETARY – Alison Evans

Mike Taylor handed over the job of Membership Secretary to me in June 2013, and since then I have been familiarising myself with the various jobs that need to be done at different times of the year. I am pleased to say that welcoming new members seems to be ongoing throughout the year. We had 76 new members joining in 2013, 57 of them for the 2013 subscription year, and 19 who joined late in the year to start their membership in 2014. Sadly, four members died during 2013, 12 resigned, and 28 members lapsed as they failed to pay their subscriptions.

As of 31st December 2013, we had 645 active members plus 51 family members. This was made up as follows:

Full members:	431, plus 46 family members
Optional members:	101, plus 5 family members
Complimentary:	34
Honorary:	8
Student:	9
Subscribers:	62

Sixty-six members chose to pay through the American Fern Society.

We now have smart BPS folders for our Welcome packs for new members, and we feel that the services we offer to members are better than ever. We would like to see our numbers rise towards the 1,000 mark for our 125th anniversary in 2016, so it is up to all of us to encourage people to join!

MEETINGS SECRETARY – Bryan Smith

The Meetings Subcommittee held a planning meeting in March but, as is the usual case, most of our business has been conducted by e-mail.

We themed the programme for 2013 around 'growing ferns', and began with a two-day visit to the Royal Botanic Garden Edinburgh as part of the April AGM (organised by Mary Gibby). The field meetings programme comprised a week in the Western Isles in June exploring the ferns of North and South Harris (organised by Pat Acock), a July weekend visit to Lincolnshire (organised by Neil Timm) and a long September weekend visiting Cornwall (organised by Martin Rickard). The one-day autumn meeting was held at RHS Harlow Carr in November with several talks and demonstrations on fern cultivation (organised by Jennifer Ide).

We again had a BPS stand at the August Southport Flower Show (organised by Michael Hayward), but the crowning show highlight was a week-long stand in July at the RHS Flower Show, Hampton Court in the Plant Heritage marquee (organised by Gill Smith). Reports on all of these meetings can be found in the rest of this *Bulletin*.

Details of meetings planned for 2014 were circulated with the Autumn Mailing and include visits to La Palma, Canary Islands (January), Capo di Ponte, Italy (May), South Wales (June), North York Moors (September), and Japan with the Hardy Fern Foundation (October), as well as the AGM meeting at the NHM, London (April) and the Autumn indoor meeting at Chelsea Physic Garden (October). As usual, the BPS will be at the Southport Flower Show (August), and we hope also for the second time to be at the RHS Flower Show, Tatton Park (July). Following the successes of the Cultivar Group's one-day

regional meetings, we have now included their events in the national meetings programme, and this includes one-day visits to The Savill Garden, Surrey (June) and Kyre, Worcestershire (October). All in all then, a very full programme! Sadly, I have to report that after many years of hard work on the Subcommittee, Jennifer Ide has decided to leave and will be much missed. However, I am pleased to report that Yvonne Golding has volunteered to join us.

As always, the success of meetings is dependent on members who voluntarily give up their time and effort in the organisation. This is no mean feat, but the rewards are well worth it. If you fancy organising a meeting, please do let one of the Subcommittee know. You won't be going it alone, as we always allocate a Subcommittee member as a liaison point for each meeting. Even if you don't want to lead, please do let us know if there are any places you would like us to visit to study ferns.

Finally, I would endorse the fine work that Regional Meetings Organisers do in arranging trips 'on your doorstep'. If you are visiting an area on holiday, it is worth checking the on-line calendar or contacting the Regional Organiser to see if there's a meeting you can join.

CONSERVATION OFFICER – Fred Rumsey

Work progressed during 2013 in both amending and updating the UK Vascular Plant Red-list and in preparing an England Red-list. While some changes to the national list relate to reconsideration of historical records, e.g. the inclusion of *Asplenium fontanum* as an extinct taxon, others reflect our growing knowledge of critical groups such as the *Dryopteris affinis* complex. Now only the comparatively newly found *D. pseudodisjuncta* cannot yet be fully assessed pending more fieldwork. The discovery of a pre-1800 specimen of *Equisetum ramosissimum* and more hybrids involving it has led to this species being considered for the first time. Previously considered to be a neophyte (a recent alien), it had not been assessed although paradoxically it had been accorded legal protection under Schedule 8 of the Wildlife and Countryside Act, 1981. Its possible removal was one topic in our submission to the quinquennial review of this Act. Also discussed were possible invasive aliens such as *Salvinia* spp. that might be added to Schedule 9, banning their trade and deliberate dispersal. It was my view that our climate is still control enough for these without recourse to law.

The production of the England Red-list has highlighted the regional plight of several taxa that can only be regarded as of Least Concern (LC) at the UK level. This reflects losses through land-use change and eutrophication and sees species of nutrient-poor habitats such as *Botrychium lunaria* and *Lycopodium clavatum* become Vulnerable (VU), alongside other more montane taxa that are also potentially influenced by climate change such as *Cryptogramma crispa* (VU) and *Equisetum pratense* (NT). As the assessment is based on threat and recent decline (post-1930) we have the situation where species such as *Calluna* and *Briza media* are coming out as more threatened than *Huperzia* or the hymenophyllums, whose great declines were historical but which are now more stable although often heavily reliant on protection of areas for their continuing survival.

Recent surveys of some of our rarest species suggest that they are maintaining their numbers well. A comprehensive survey in late 2013 of *Dryopteris cristata*, funded by Natural England, has shown the plant to be increasing in some core areas in the Broads but it has been lost from its outlying coastal sites. We have now re-assessed this species from CR (Critically Endangered) to EN (Endangered) but we should have no cause for complacency, not least as its increase may reflect underlying water quality issues, which threaten the survival of some of the more base-loving species the area is famous for.

Finally, following my comments for 2012 on the loss of *Asplenium* × *jacksonii*, it is good to report that it is again extant (for now!) in Guernsey, the third plant that has been produced in this particular lane in the last ten years.

RECORDING OFFICER – Fred Rumsey

A big thank you to all who have made records in 2013 and apologies to all of you who have made notable finds that I've neglected to mention in the following report. I am very grateful to those who have taken the trouble to send records to me, and/or direct to their local Vice-county Recorders. As I've said before, these records are vitally important and build a growing and ever more useful resource.

For certain very rare and range-restricted species we need to establish ongoing monitoring and population counts. This work is already being accomplished for some populations of species such as *Woodsia ilvensis*, where ongoing monitoring is vital in our understanding of the species' reproductive biology and ecology. Other populations of this plant would benefit from similar attention and I'd be interested to hear from anyone who might like to adopt this, or any other local rarity. In this vein an initiative planned for 2014 will see a combined team effort to enable the monitoring of all of the known sites for *Isoetes hystrix* on the Lizard peninsula. It is good to see us linking up with other wildlife and recording groups at the regional level to make sure that ferns and their needs are not forgotten.

The potential for ferns to establish following long-distance dispersal means that great surprises are possible. *Asplenium marinum*, found under a railway bridge in Lambeth, is just the latest in a series of our scarcer spleenworts that have colonised London's walls. These disjunct occurrences of native species well away from their accepted range have a contentious status and although often treated as introductions I feel this does not capture their true nature. While these are often only ephemeral and thus arguably not of such great importance, they can prove highly resilient, such as the *Asplenium viride* at Ravenscourt Park in West London, known since 1995 and re-found by Pat Acock after many months' absence following wall-cleaning operations. As with our natives it is probable that European taxa may also turn up, as did *Asplenium fontanum* in the distant past. My find of *Christella dentata* in Lambeth in March 2013 posed similar questions as to its likely origin. Most exotic taxa are more clearly linked to nearby gardens but in this instance long-range dispersal seems a plausible scenario. Incidentally, your records for any established alien are still particularly welcome as we seek to understand how species are established and spread.

The year saw further finds of the rare hybrid *Isoetes* × *hickeyi* by Claudia Ferguson-Smythe in Scotland and Kate Thorne in Wales, and a first record of *Huperzia selago* subsp. *arctica* by Mark Jannink in Ireland. Both are surely overlooked – the latter particularly so. If you think you may have this I would be very pleased to look at specimens, as this is one of the critical taxa that I hope to dedicate more time to in 2014 in the hope that it can finally be removed from the Waiting List in the UK Red-Data List.

Once again I would encourage everyone to look at the online maps maintained by the BSBI – help pick up errors, look to update records from your area and add in new sites where possible. My thanks again and happy hunting in the coming year.

PUBLICATIONS SECRETARY – Martin Rickard

The three journals are all running very well. The *Pteridologist* continues to get praise from all quarters of the membership. The *Bulletin* is widely recognised as an accurate record of the Society's progress over the year, brilliantly put together based on contributions from countless contributors. The *Fern Gazette* is on track to be up-to-date with issues for the first time for quite a while. This calendar year the Editor has produced four issues. One setback for the *Fern Gazette* has been the very sad death of Koos Roux, the South African member of the Editorial Committee.

There have been two new Special Publications:

No. 11. *The British Fern Gazette Volumes 1-9, 1909-1967 and British Ferns by E.J. Lowe, 1891*. Prepared on a searchable disc by Michael Hayward, it is available from Michael himself or from Pat Acock. This is a first time opportunity for members to have this fabulous

archive readily available. The addition of *British Ferns* is also very useful as this little book is becoming very scarce; it is the most comprehensive list of fern cultivars ever produced.

No. 12. *Who found our ferns?* by John Edgington. The result of many years of research into rare books, rare documents and old herbaria held in the great museums. A fascinating read that follows the discoveries of the early botanists and the struggle to perfect our naming system. This book is selling extremely well and may well be out of print by the end of the year. Buy it now!

Two other Special Publications are in the pipeline. Another one by Michael Hayward, with an in-depth account of the famous Jones nature prints. This will include a CD of the complete book as issued. The original is very rare with only ten copies known, some of those not complete. It was expected during 2013 but for logistical reasons was held over until 2014. The other Special Publication nearing completion is *Some taxa within the Dryopteris affinis complex, a field guide* by the late Ken Trewren. Ken's wonderful guide is reproduced as he wrote it, accompanied by explanatory sections added by the two editors, Alison Evans and Anthony Pigott.

FERN GAZETTE EDITOR – Mary Gibby

Four parts of the *Fern Gazette* were produced during the past 12 months – twice our usual number, but this was to catch up with the publication schedule that had slipped in recent years. This means that we are now back on schedule, and plan to publish two parts – Volume 19 parts 7 and 8 in May and November of 2014. The work of the editorial board and our two review editors has been very valuable. Sadly, one of the members of the editorial board, Dr Koos Roux, died suddenly in May 2013 (see Obituaries). The review articles have been well received, and we plan to continue to publish this series on a regular basis.

PTERIDOLOGIST EDITOR – Alec Greening

The 2013 issue of the *Pteridologist* marked the end of Volume 5. It was the largest yet, with 88 pages plus cover and it was published at the end of May, as promised. This makes a total of 475 pages within this volume. The previous volume ran to a total of 208 pages. Why the huge difference? More than doubling the size means more costs to the Society and more work for the editor and authors alike. Thankfully the printing costs have been kept as low as possible and the editor is a glutton for punishment! This huge increase is a direct result of the many members of the Society and a few non-members who are prepared to write amazing, instructive and educational articles. I only hope that this trend continues.

I must thank all my proof readers for their attention to detail. They have volunteered for the next issue so I must have treated them gently!

The first issue of Volume 6 should be published at the end of May. I hope you all find it as informative and entertaining as usual, but please don't expect it to be bigger than the 2013 issue.

BULLETIN EDITOR – Alison Paul

The 2013 *Bulletin* is another big issue, with 92 pages, reflecting the continuing impressive number and range of the Society's activities. Every three years we publish a complete Membership List; usually a centre insert in the *Bulletin*, this time it is separate due to the overall number of pages exceeding the limit for stitching.

WEBSITE EDITOR – Anthony Pigott

The website continues to develop, both with the usual updates of BPS information, and new features in 2013. We are starting to implement a 'mirror' site on our own web space to ensure greater flexibility and resilience in the future.

We continue to work with a system of 'content providers' to enable more people to be involved in the acquisition and update of material for the website.

The BPS Fern Forum (www.fernforum.net/bb/) has over 200 registered members and enables experts and enthusiasts from all over the world to exchange information about all aspects of pteridophytes. We see this as a significant service provided by the Society and one that enhances its visibility and standing. We have also continued to implement features such as an expanded and revamped 'Where to see Ferns', 'Ferns in Members' Gardens' and a 'Hardy Ferns Guide' using wiki software that allows easy editing by several people.

We continue to expand the use of e-mail and 'social networking' to enhance the way the Society communicates with its members. These are covered in more detail in the Publicity Officer's report.

As always, offers of contributions and other help are extremely welcome. A list of ways that people can help, large and small, is on the website.

EDUCATION OFFICER – Alison Evans

Our planning meeting in February 2013 was attended by Alison Evans, Bridget Laue, Frank McGavigan and Heather McHaffie. Top of the agenda was a discussion about how we can best use our limited resources to 'spread the word' about ferns to potential new members. We decided that our strategy should be to support the activities of our BPS colleagues in raising the profile of the Society, and to work with other organisations so that the BPS would have a presence at events that are well-publicised and attended. We also felt that we needed to recruit more members to the Education Subcommittee, in particular from the south. I am delighted to report that Peter Blake and Jude Lawton have agreed to join us, and we are looking forward to the first meeting of our expanded group in February 2014.

In 2013 we reviewed our educational leaflets, and instituted an annual 'stock-take' so that we know who has supplies of leaflets, and can predict when we will need further print-runs. Our educational leaflet 'The Private Life of Ferns', devised by Yvonne Golding and illustrated by Michael Hill, was professionally printed, as was a new leaflet 'Cultivation of Ferns', based on the work of the late Graham Ackers. More recently, we were very pleased to have a new illustrated leaflet 'Growing ferns from spores', written and designed by Sue and Brian Dockerill, our Spore Exchange organisers. All these leaflets are available for download from the BPS website.

On April 20th the BPS had stands at Wisley (Surrey) and at Harlow Carr (Yorkshire) as part of the RHS Plant Society Open Day. This is reported elsewhere in the *Bulletin*.

The Scotland Group were very active on the educational front in 2013, with BPS presence at a BioBlitz held on June 22nd at the Royal Botanic Garden Edinburgh, and a guided walk led by Frank McGavigan at Geilston Garden on July 27th. A fern identification meeting was held with the BSBI in Puck's Glen, Argyll, in September. More joint meetings with the BSBI are planned. The Scotland Group also had a BPS stand at the joint BSBI/BSS meeting at RBGE on November 2nd. Reports on all these events are with the Scotland Group reports in this *Bulletin*.

In early May we learned that the Natural History Museum was holding a 'Big Nature Day' event on the 13th July, a direct clash with the Hampton Court Flower Show. We were very grateful to Peter Blake, Beccy Middleton and Alison Paul for volunteering at short notice to help on the stand. This event is reported elsewhere in the *Bulletin*.

On July 21st Bruce Brown and Alison Evans led a guided fern walk during a BioBlitz weekend at Foxglove Covert Nature Reserve in Catterick Garrison. This is reported along with the Yorkshire Group meetings.

Unfortunately we were unable to run any guided fern walks at Nymans in West Sussex (NT) in 2013, as the weekend that they wanted us was not convenient for any of us. We agreed that for 2014 we will decide on a date in August or September that we can manage and let them know early in the year.

In November we started on an exciting new venture with James Merryweather at the Field Studies Council Blencathra Centre near Keswick in Cumbria. James runs fern courses there, and our aim is to establish as many British native ferns as possible in their eco-garden so that they will be available for teaching purposes. We are also planning to produce a leaflet for a self-guided fern trail, so that any visitors to the centre will have the opportunity to learn about ferns. Yvonne Golding, Roland Ennos and Alison Evans helped James with planting our first batch of ferns on 15th November, and we plan to return in March 2014 to continue the work.

As always, the Education group would welcome your comments and suggestions about how we can be of help to you and the wider public – please e-mail Education@eBPS.org.uk with your ideas.

PUBLICITY & MARKETING OFFICER – Lizzie Evans

In 2013 I continued to manage the BPS Facebook and Twitter presence, and to produce the online Newsletter that is now being published twice a year in spring and autumn. I also looked after the BPS Fern World blog, which involved moving all the content to a new blog host, Tumblr, as the Posterous website was unfortunately bought out and closed down. I started a BPS Pinterest account, which is a place to collect all kinds of fern-related items and hopefully connect with other fern enthusiasts. As always, if you would like any more information about any of the Publicity channels, or wish to submit an item for the Newsletter, please e-mail me at Publicity@eBPS.org.uk. Thanks.

PROJECT OFFICER – Anthony Pigott

Recording & Mapping. This aims to increase participation of the BPS in the recording and analysis of pteridophyte distribution in Britain and Ireland. It includes encouraging members to make records, and working with the BSBI to facilitate the input of new data and access to existing records.

Photographic Recording. We invite people to take photographs of fern sites at different points in time with a view to learning about variations in conditions and abundance. Full details are on the website. Members are strongly encouraged to participate.

On-line Journals. Some years ago the BPS decided to make back numbers of its journals available on-line. There is a tremendous wealth of pteridophyte knowledge in those pages that is difficult to access and search on paper. All of the Society's journals over two years old have now been scanned and are available at the Biodiversity Heritage Library (BHL). Go to: www.biodiversitylibrary.org/ and search for 'British Pteridological Society'. We have started to put these on our own website this year along with the original better quality digital versions where available.

Website Development. This project continues to look at ways to get more people involved and to make our web activities easier to expand and develop. For more details, please see the Website Editor's report.

SPORE EXCHANGE ORGANISER – Brian and Sue Dockerill

We were very pleased with all the support we received in our first year running the Spore Exchange, and wish to register our thanks to Matt Busby for making the handover as smooth as possible. While at times it was very busy, we enjoyed learning more about cleaning and packaging spores and fern nomenclature, and having contact with the enthusiastic participants.

The Spore List was produced as usual with a total of 374 taxa, similar to the 2012 total of 377. It was circulated slightly later to reflect the revised date of the Autumn Mailing. We are very grateful to the 35 spore donors who made the list possible and allowed the 99 people who placed orders to receive a total of 1,726 packets of spores, 1,543 (89%) of which were first choices.

New donors are always welcome and anyone with ferns they think would make a good addition to the list can contact us on Spores@eBPS.org.uk. Almost everything on the

current list was ordered by at least one person, although unusual items were naturally the most popular.

Our expenses this year have been higher than usual as we have made a bulk purchase of the glassine envelopes used to store and distribute the packages of spores. This will provide a saving overall and we estimate that we will not need to re-order these for a further five years. We do not intend to make any significant changes to the Exchange, but welcome any comments or suggestions that members may have for improvements.

PLANT EXCHANGE ORGANISER – Jonathan Crowe

Donor forms were sent to those who participated the previous year and to others who had expressed an interest. The Plant Exchange List was compiled and distributed early in July 2013. Again our regular five members offered plants. It would be great if more people were to offer plants in 2014, so do remember the scheme when the produce of your spore sowings and plant division exceeds your needs. Fifty-five taxa were offered, nine more than in 2012, and several of these were new to the list, suggesting that the scheme is helping to enrich our garden flora. Two members listed plants that they were seeking.

Details concerning the scheme can be found under Secretarial Notes in the *Bulletin*.

BOOKSALES ORGANISER – Frank Katzer

The last year was very enjoyable, busy and lucrative for BPS Booksales. The highlight was the auction of the fern book collection bequeathed to the Society by the late Graham Ackers. In total, the sale of these books raised approximately £17,000 for the Society. This was achieved by selling the books in different ways, depending on the initial demand expressed by people who said that they were interested in purchasing Graham's books. This was done by: 1) direct sales where only a single person expressed an interest in a given book, 2) an internet auction, for less popular items and 3) auction of the most desirable and valuable books at the AGM in Edinburgh. This means that as well as raising money for the Society, Graham's books have been kept within the BPS membership, which was his request.

I would like to take the opportunity to thank Yvonne Golding, yet again, for all her help and support during the year. Yvonne has taken books to many national and regional meetings, making books available to many more BPS members than I have contact with.

BPS Booksales always welcomes bequests of books or offers to purchase either individual books or whole book collections. Please keep in mind that the prices offered cannot be internet prices but if you sell books to dealers, they will not offer you sales prices either. To contact me please use my work e-mail: Frank.Katzer@moredun.ac.uk or the Booksales e-mail: Booksales@eBPS.org.uk. I can also be contacted by post: Frank Katzer, Highfield House, Muirburn, Skirling ML12 6HL, Scotland, or by phone 0044 (0)1899 860 307.

MERCHANDISE ORGANISERS – Bryan & Gill Smith

It was encouraging that Merchandise sales remained as good in 2013 (at over £1,300) as in 2012 (at just over £1,200). There were a lot more mail orders in 2013, over 30 compared to around 20 in 2012, though the number from overseas remained small. In 2013, they came from the UK, Eire, Hungary and Netherlands, compared with the UK, Denmark, Germany and Hungary in 2012. The small numbers from overseas were possibly due to the high postage costs, especially to places like the USA and Australia where the postage can equal twice the cost of the merchandise!

We produced the 2014 BPS calendar early in the year to try and improve on sales, and it was ready for the 2013 AGM. This paid off and there were more selling opportunities throughout the year. We hope that the Photographic Competition, winners to be announced at the AGM, will provide more stunning images for future calendars. We added another new item – the BPS wallet folder, which is made of sturdy, glossy card and has colour photos of BPS activities on it, in which to store your ferny papers and meetings programmes. The

What's That Fern? low cost, colour field guide to 19 British ferns continued to sell well during the year, as did the hand lens and the FSC/BPS *Key to Common Ferns*.

As in previous years, the AGM and Autumn indoor meeting proved good opportunities for face-to-face sales, but in addition, our stand at the Hampton Court Flower Show gave us a good opportunity to sell some items to the general public. Face-to-face selling saves members postage and packing costs. This was also possible at local regional meetings, as well as the national meetings in the Hebrides and Cornwall. Colleagues in the north sold merchandise at Southport Flower Show, and at the North-West Regional Group's AGM. Further details of the accounts can be found in the Merchandise section of the Treasurer's accounts.

In March, we updated the order form part of the merchandise list to try and make ordering simpler, and the latest list (June 2013), which was distributed with the Autumn Mailing, included the new wallet folder. New order forms are sent out whenever we fulfil mail orders. The list now boasts some 20 ranges and a total of nearly 70 individual products. The BPS website carries full details of what is currently available and it will soon provide a facility to order using PayPal.

HORTICULTURAL INFORMATION ADVISER – Matt Busby

Most of the few enquiries I received in 2013 were from non-members who picked up my e-mail address on the Society's website. This was quite acceptable to me because there were few of them and they related to fern cultivation. Non-members' queries concerned the acquisition of suitable fern books, where to obtain hardy ferns, and obtaining ferns from spores. Two members requested information on the acquisition of specific ferns, a third asked for a supplier of indoor adiantums and another sought a source of *Pteris cretica* 'Wimsettii'. All requests were dealt with satisfactorily.

ARCHIVIST – Matt Busby

The Society's archive is housed at the University of Manchester Museum, Oxford Road, M13 9PL. Access is dependent on museum staff being available to accompany visitors to the archive. Members are advised to contact the Society Archivist for advice before visiting the museum. Please note the following:

- There is no access to the archive at weekends, and weekday lunch-times should be avoided.
- Arrangements for visiting the archive should be made by contacting Dr Rachel Webster: Rachel.E.Webster@manchester.ac.uk. The museum phone number is 0161-275-2648.
- Items for the archive should be sent to the Archivist, A.R. Busby, at his home address;.
- Items can only be loaned if prior permission has been received from the Archivist.
- Any items removed from the archive should be entered in the Archive Loans Book.
- A copy of the current archive catalogue can be obtained either by e-mail or post from A.R. Busby at 16 Kirby Corner Road, Canley, Coventry CV4 8GD (02476-715690).

We are always anxious to acquire photographs, documents, horticultural catalogues and press cuttings featuring ferns and fern growing for the archive. Pre-1890 items are particularly valuable. Collection can be arranged for heavy or bulky items.

Due to my recent infirmity, I was not able to visit the archive for some time. In spite of this I continued to accept items at home and prepared a list of recent donations. I received a report about flooding at the museum which, most fortunately, resulted in only minor damage. I wish to record my thanks to Yvonne Golding and Alison Evans for taking care of the archive in my absence.

Applications were received for various items to be used in both Society and outside publications.

CULTIVAR REGISTRATION SUBCOMMITTEE – Martin Rickard

There was no activity in 2013.

OBITUARIES

Jack Henry Bouckley

1919 - 2013



photo: B. Wright

Matt Busby, Neil Timm, Jimmy Dyce, Jack Bouckley and Jennifer Ide at the BPS Centenary meeting, Cumbria, 1991

Jack was born in Birmingham on 6th April 1919 and died on 19th June 2013 at 94 years of age. He is proof that ferns are good for you. He even outdid other notable pteridologists such as Reggie Kaye (91) and Jimmy Dyce (91); must have been the change from soft 'Brummy' air to top quality hard Yorkshire stuff.

He went to School in Yardley and was a keen rugby player, obviously coming to his senses and getting into ferns before breaking too many bones. His military career during the war was based in Aldershot and Woolwich, and I recall a gruesome tale he recounted of an accident with some ordnance that had a significant impact on his hearing. He had dalliances with a variety of jobs, including working at the Prudential in Matlock in the 1950s before settling down in God's own county and working as a porter in a local hospital. He had been married to Ruth for almost 67 years when she sadly died in 2010. Jack was undaunted by the burden of taking care of her in the latter years and often had to decline invitations to attend meetings because he needed to be at home. I used to take him across to the North-West Group AGMs until he could no longer go because of Ruth.

My first contact with Jack was not long after he joined the BPS, when he sent out a letter to local members asking if there was interest in setting up a regional group to cover Leeds and district. This resulted in nine keen souls attending an inaugural meeting on 18th January 1984. A notably cold evening to my recollection, but a warm welcome from Jack, and his enthusiastic persuasion set us on the course that developed the Leeds and District group, now the Yorkshire Fern Group (name changed after much debate and discussion), which will be celebrating its 30th anniversary in 2014. Founding the local group is in itself a significant legacy from one of the most passionate fern-oholics I have ever met during my own period of fascination for ferns. He brought together and held together a band of both professional and amateur fern lovers until the passage of time persuaded him to give up the reins of chairman to me. Eventually he was unable to attend the more energetic field

meetings, but he still maintained his interest in ferns and had a number of pet projects, most notably the fern collection he created at York Cemetery, with local members' help. He even managed to get the late Geoffrey Smith (a long-standing personal friend) and the Lord Mayor and Lady Mayoress of York to attend a grand opening and ceremonial planting of a fern. That was a wet day, but the ferns didn't mind. Jack was a regular contributor to the *Pteridologist*, and his last article, in the 2013 issue, was about the Cemetery ferns and three other Yorkshire fern collections that he was instrumental in setting up. He was keen on maintaining such collections and doled out spores for us to grow on and donate to RHS Harlow Carr for their proposed *Dryopteris* collection. This we did and took our plants to the gardens, where they were sadly neglected, resulting in only a few making it into the collection. Even with his reduced mobility, Jack still managed to ride his electric scooter to get all the way across Harrogate to Harlow Carr to join us for the 2012 Yorkshire Group AGM.

The enduring memories of Jack revolve around his vast knowledge of ferns, both native and cultivated, and the willingness with which he shared that knowledge – and spare plants as well. He was a keen donor of spores to the Society spore exchange and was always one of the first to get his request in to my wife (Anne) and me when we ran the exchange. One of his great personal achievements was nothing simpler than being able to grow adder's tongue fern from spores, by accident, but none-the-less a personal high for him.

From foot soldier to Leeds and District Group Chairman, Jack was ambitious and achieved the ultimate recognition of his value to the Society by getting his 'promotion' to President at the 1991 AGM. This was in the Society's centenary year and was held in the Heaves Hotel in Cumbria. The photo I took then shows Matt Busby being presented with something, but to me it seems to capture Jack's enjoyment not only of ferns, but also of the ferny folk he loved to be with and sharing his experiences. He was very keen to encourage recruitment of new members and at his retiring address in 1994 re-affirmed his challenge from 1991 to get membership to 1,000 by the year 2000.

I don't think he really considered his own mortality. He was a bit like someone in their nineties planting an arboretum and looking forward to having some shade to sit under when the trees got big enough. Jack was still acquiring plants even in 2013 when I gave him some replacement adder's tongue (his proud sporeling having died). In 2012 Jack asked me to cut up and find homes for some of his ferns. This was nothing more sinister than them being too big – he couldn't cope with them and needed more space for other things. Jack was also keen on alpine plants until the love of ferns pushed that to one side somewhat. Very understandable but the trouble is that you can never win an Alpine Garden Society Farrar Medal with a fern (Best plant 'in flower or fruit'). Their two daughters, Hazel and Brenda, both live in Yorkshire and are dealing with Jack's fern collection, which was of course beautifully labelled. It is destined for the RHS garden at Harlow Carr, where Jack spent much time helping with their National Collections of *Dryopteris* and *Polypodium*.

I'm sure many of you will have other fond memories of Jack that will come to the fore when reading my personal recollections. I can't recall any bad memories, only one scary one on a trip to a limestone pavement when it started to rain. Jack ordered us all off the site as 'carefully' as possible (limestone becomes as slippery as ice when wet). After much gingerly stepping only on flat bits of pavement (the clints) and trying to step across only narrow grykes (the deep 'crevicy' bits), we finally reached 'dry land'. After a quick head-count we were pleased to be rewarded with a lovely colony of moonwort in the short turf bordering the pavement, which Jack wasn't expecting. Every cloud has a silver lining.

Perhaps the most endearing recollection about Jack was the ending of his phone calls, with his Brummy 'tarrar a bit'. Tarrar a bit Jack, missed and not forgotten.

Barry Wright

Roy Copson shared with his wife Denise a lifelong interest in all types of wildlife. They were also keen ramblers.

On moving from Northampton to Lancaster in 1991, Roy became fern recorder for the North Lancashire Wildlife Trust. To increase his knowledge of pteridophytes he joined the BPS in 1998 and became a regular participant in the meetings of both the North-West and Yorkshire regional groups. His natural curiosity and diligent approach to learning soon led to him organising varied field meetings. These covered a wide range of habitats from damp lowland woods (where he identified *Dryopteris* × *deweveri*), through limestone areas, to the higher slopes of the Lake District where, at Newlands, near Keswick, four species of clubmosses were found on one day as well as a good variety of ferns.

Sadly, as Roy's health deteriorated he became less able to participate in meetings but he remained as active as he could and continued learning more about ferns and observing other forms of wildlife from which he gained much pleasure.

We greatly miss Roy's friendship and quiet sense of humour and are glad that Denise, to whom we send condolences, will continue participating in our meets.

Frances Haigh

Bridget Moriarty Graham**21st April 1912 – 11th July 2013**

Bridget was a keen supporter of the Cornish Garden Society, writing articles on diverse horticultural subjects for its journal. One of these was 'About tree ferns' published in 1983. About that time I became fascinated by tree ferns and while researching their distribution in gardens I came across her name. I eventually learned her phone number and we arranged a rendez-vous at Trelassick garden north of Falmouth. My paper on tree ferns in gardens in the *Pteridologist* in 1987 was stimulated by this meeting. I soon realised that she had a great knowledge of tree ferns and other garden ferns. In 1990 Bridget and her husband Michael invited my family to join them on a holiday in the West Indian island of Nevis with a view to studying the ferns. This we did and, with much help from Dennis Adams, we jointly published a revised list of the pteridophytes of Nevis in the *Fern Gazette* in 1993.

Bridget was a member of the Society from 1982 to 2007, and although she was geographically well away from the Society's centres of activity she took a keen interest in what was going on and came to the 1991 centenary celebrations in Cumbria. She also occasionally contributed articles to the *Pteridologist*.

Outside the world of ferns Bridget was a fascinating character. In the mid-1930s while on holiday with Michael in Germany, I think Bavaria, they were turned away from a rural, pre-booked hotel. They were not happy and protested at length until they were eventually admitted on condition they did not leave their room. During the night they were awoken by much shouting. They recognised Hitler's voice. They were witnesses to one of the infamous 'Nights of the long knives' when Hitler disposed of his political opposition. In later life Bridget became the best friend of Daphne du Maurier, the novelist. Every morning Daphne would come and join Bridget for morning coffee. They even researched Daphne's book *The house on the Strand* together. At one point in the book the main character actually wakes up in the garden of 'Mr Graham at Polpey', Bridget's garden – overlooking the sea and ideal for growing ferns. Few survived Bridget's later years when she could rarely get outside but this year I was pleased to see that the naturalised *Microsorium diversifolium* still thrives, albeit well hidden under ivy!

Martin Rickard

Edith Kamermans (née Austen)**1917 – 2013**

I was sad to learn from Iain Jacks of Nova Scotia, Canada, that Edith had passed away on the 24th August 2013. Edith was married to Jan Kamermans and had lived in Canada for very many years but she retained a deep love of Britain all her life. She was one of our longest established members; I think she joined in 1962 but the earliest record I can find of her membership is 1973. If the earlier date is true, it makes her a member for about 50 years and one of our longest serving members ever. Edith attended at least two of our BPS organised symposia, most notably the 1991 centenary symposium 'The cultivation and propagation of Pteridophytes'. She enjoyed the lectures and particularly the garden tour afterwards. I remember sitting behind her during a lecture by Mary Gibby at Imperial College, when she turned round and whispered to me 'An English rose'! She loved England and our roses!

Living at Southampton on the Bruce Peninsula in Ontario, Canada, she was somewhat remote from most of our meetings but she kept in touch for several years, sending enticing publicity material for the Niagara Escarpment Parks and offering accommodation. Sadly I never went. Her knowledge of her native ferns was very good; she was invited to lead a course on ferns at a local field station, but she lamented the lack of fern gardens, or even ferns in gardens in Canada.

Martin Rickard**Dr Jacobus P. Roux****1954 - 2013**

Dr Jacobus Roux, or Koos Roux as he was known to all, was curator at the South African National Botanical Institute's (SANBI) Compton Herbarium at Kirstenbosch. Sadly, he was killed in a hit-and-run accident on Sunday 12th May 2013 while out cycling with his son.

Koos' research on ferns was extensive, and included over 40 publications. His first publication, in 1979, was a book, *Cape peninsula ferns*, a very useful guide to the ferns of the area with black and white drawings and a key. He went on to become curator at the Compton Herbarium in the late 1980s, and became a thorough taxonomist, including gaining his PhD in 1998 on a taxonomic revision of *Polystichum*. He published a wide range of papers – new records, descriptions of new species, reviews of genera in Africa or in outlying islands, including *Elaphoglossum*, *Mohria*, *Polystichum* and *Dryopteris*, working from herbarium material, field knowledge and the literature. Eventually he reviewed the whole range of ferns and lycophytes from Africa, culminating in what must be his magnum opus in 2009, *Synopsis of the Lycopodiophyta and Pteridophyta of Africa, Madagascar and neighbouring islands*. This superb volume gives verification of original place of publication of all names, provenance and type localities for names and synonyms, and many names have been lectotypified. The work has 57 new combinations and new names, the introduction gives statistics on numbers of taxa for each individual country or island group, and the book is illustrated with 48 colour pictures. This is the first time the whole fern flora of Africa had been reviewed since Kuhn's publication, *Filices africanae* in 1868. As Koos himself acknowledged, his mammoth task had been greatly assisted through his collaboration with many herbarium curators and fern taxonomists around the world, and the access to on-line scanned type specimens and literature that is now available. His untimely death is a huge loss for the Compton Herbarium, for SANBI, and for the ferns of Africa. Titles of his extensive fern publications will be published in the *Fern Gazette*. We extend our sympathies to his family and colleagues.

Mary Gibby

I was first aware of Koos in 1979 when I obtained my copy of his *Cape Peninsula ferns*. I had been ferning in the Cape a bit in 1976 and his book greatly interested me as my only

source at the time had been Sim's *Ferns of South Africa*, 1915. A little out of date! Retrospectively, Koos's little book helped me to name some of my specimens.

I only met him once, in 2007, but over the years we corresponded from time to time. He was always an excellent correspondent, courteously replying to my queries. Most notable to me was one about a filmy fern I had found in the Western Cape. Prof. Schelpe insisted it was simply *Hymenophyllum tunbrigense* growing in favourable conditions. Given that the plant grew in running water and had fronds up to six inches long by three inches wide but was never seen to spore, I found that difficult to accept. I eventually showed Koos my specimens and he was much more interested. I sent him Madeiran material for comparison. I had hoped he would eventually be able to sort out the situation but unless there is an unpublished paper in SANBI archives we will never know if he solved the mystery.

When I did eventually meet him in 2007, in company with Dick Hayward at SANBI beside Kirstenbosch in Cape Town, he was a wonderful host, generously giving of his time and various copies of books and papers he had published, and allowing us a free run of the herbarium. A year later I was wanting to illustrate a review compiled by Graham Ackers for the *Pteridologist*. It was the *Field guide to the animals and plants of Tristan da Cunha and Gough Island*. I e-mailed Koos, asking if he had any good pictures of *Blechnum palmiforme* he could send me. Within 12 hours a magnificent set arrived! I'm not sure who took them but in the end it was not practical to publish any. I know other BPS members visited him in Cape Town, including Graham Ackers. After the BPS South Africa excursion in 2012, some of the group met him when they took a few days break in Cape Town. Koos accompanied them around Kirstenbosch Gardens and up Skeleton Gorge – lucky people!

Recently, Mary Gibby had been looking to expand the Editorial Committee of the *Fern Gazette*. Happily Koos agreed to join us, giving us input from one of Africa's most prominent pteridologists. Very sadly his time ran out and, although he reviewed manuscripts, we never received any copy from him.

Martin Rickard

IN MEMORIAM

We were also sorry to learn of the death of the following (date joined BPS in brackets):

Mr Howard L. Davies of Wallington, Surrey (1976)

Mogens Huge of Denmark (first joined in 1986)

THE AMERICAN FERN SOCIETY

The AFS invites all readers of this *Bulletin* to join the American Fern Society. You are welcome to visit the AFS website: amerfernsoc.org. Regular members receive *Fiddlehead Forum* five times a year, a newsletter published for those who are interested in growing ferns, hunting for them and expanding their knowledge of ferns. Journal members also receive the scientific quarterly *American Fern Journal*. Membership costs \$22 and \$40 per annum respectively for members residing outside USA, Canada or Mexico, including postage for airmail-assisted delivery. For particulars please write to Dr Blanca León, Plant Resources Center, University of Texas at Austin, 1 University Station, F0404, Austin, TX 78712-0471 USA (bleon.afs20@gmail.com). Online credit card payment is available via the AFS website: amerfernsoc.org.

AFS SUBSCRIPTION PAYMENTS: Our societies have an exchange arrangement whereby members of the BPS can pay their AFS subscription through the BPS Membership Secretary and *vice versa*. To take advantage of this, prospective members should contact Dr Alison Evans, Springfield House, Salterforth Road, Earby, Lancs. BB18 6NE (Membership@eBPS.org.uk).

FERN RECORDS

Mike Porter

Following a request to the BPS committee to publish new fern distribution records, a short list, drawn from BSBI Plant Records, was published in the 2009 and 2011 *Bulletin*. Our intention was to publish further records from this source, possibly on a biennial basis, and the third tranche of records follows below.

Several times a year, the BSBI publishes in *New Journal of Botany* under the title of Plant Records, a list of species new to any of the vice-counties of the British Isles. Additionally, those species that have recently been recorded for the first time since 1970 are also published. With the permission of the BSBI, we have selected from the lists published in 2012 and 2013 the species of particular interest to BPS members, and these are set out below. Please note that only records actually sent to the Plant Records Editor are published.

Each entry contains the Latin name of the species as given in *New Journal of Botany* (in bold), the number (in bold) and name of the vice-county, the habitat, the location, a grid reference, the name of the recorder, the year the record was made, (where appropriate) the name of the expert who determined or confirmed the record, (where appropriate) the name of the herbarium where the specimen is lodged (in bold) and (sometimes) a comment giving more information about the plant, its status or its discovery.

An asterisk * before the vice-county number indicates a new record for that vice-county.

Adiantum raddianum *38, Warks.: cellar, 28 Portland Street, Leamington Spa, SP315657, J.W. Partridge, 2012, det. F.J. Rumsey, **WAR**.

Asplenium trichomanes subsp. **trichomanes** *110, Outer Hebrides: at 240m, Cathadail an Ear, N. Harris, NB095104, P.A. Smith, 2012, conf. F.J. Rumsey.

Ceterach officinarum *110, Outer Hebrides: in wall, Langass Lodge, N. Uist, NF838652, D.R. McKean, 2010.

Dryopteris oreades *81, Berwicks: colony in scree, Lauder Burn, NT519462, M.E. Braithwaite, 2012, det. R.W.M. Corner.

Equisetum × **rothmaleri** (**E. arvense** × **E. palustre** *60, W. Lancs.: old gravel pit, Brockholes Wetland Nature Reserve, Preston, SD586308, M.J.Y. Foley, 2008, det. C.N. Page. Site destroyed when visitor centre built on top. *77, Lanarks.: wet ditch, near Lochlyoch Reservoir, NS9335, P. Macpherson, 1998, det. C.N. Page & H. McHaffie, **herb. P.M.** Only recently sent for determination.

Huperzia selago 63, S.W. Yorks.: Featherbed Moss, SE0406, M.J. Lucas, 2005. 1st record since 1970.

Isoetes echinospora 110, Outer Hebrides: Loch an t-Sidhein, NB53L, P.A. Smith, R. Harley & L. Marsh, 2011. 110, Outer Hebrides: Thairteabhaigh, NF827155, P.A. Smith, 2011. 110, Outer Hebrides: unnamed lochan at 90m asl. near Loch na Cointich, NF967718, P.A. Smith, 2011.

Isoetes × **hickeyi** (**I. echinospora** × **I. lacustris**) *110, Outer Hebrides: unnamed loch near Struparsaig, S Harris, NG122908, C. Ferguson-Smyth, 2012, conf. F.J. Rumsey.

Phegopteris connectilis 44, Carms.: c.10 plants with *Oreopteris limbosperma* on lane bank below Llethr Brith, SN675497, S.D.S. Bosanquet, 2010. 1st post-1970 and first localised record for hectad.

Polypodium × **font-queri** (**P. cambricum** × **P. vulgare**) *39, Staffs.: steep slopes above and in upper part of limestone woodland at 250m, Thor's Cave, Manifold Valley, SK098549, B.N. Brown, 2009, det. R.J. Cooke.

Polypodium × **shivasiae** (**P. cambricum** × **P. interjectum**) *39, Staffs.: steep slopes above and in upper part of limestone woodland at 250m, Thor's Cave, Manifold Valley, SK098549, B.N. Brown, 2009, det. R.J. Cooke.

Polystichum × **bicknellii** (**P. aculeatum** × **P. setiferum**) *29, Cambs.: at least one plant, self-sown on steep south bank of Bin Brook, behind gardens, Coton, TL407585, CNHS excursion, 2010, det. A.C. Leslie, conf. F.J. Rumsey, **CGE**. Plants are of intermediate form with poorly formed spores. Both parents planted in gardens a little further upstream. Site discovered by J.D. Shanklin.

Polystichum munitum *70, Cumberland: single plant on crag in old woodland, now central reservation of A66, N of Braithwaite, NY213289, M.S. Porter, 2009, det. M. Rickard.

Pteris cretica *7, N. Wilts.: in well in a pub, Malmesbury, ST931874, P. Darby, 2007, det. S. Pilkington.

MEETINGS PROGRAMME 2014

Meetings Secretary: B.D. Smith

Meetings Subcommittee: P.J. Acock, R.J. Cooke, R. Golding, Y.C. Golding, N.J. Hards, M.H. Rickard, P.H. Ripley, F.J. Rumsey

- | | |
|----------------------------|--|
| Fri. 10 - Fri. 17 Jan. | Week Field Meeting - La Palma, Canary Islands
Leader/Contact: Yvonne Golding |
| Sat. 12 April | AGM & Spring Indoor Meeting - Natural History Museum, London
Leader/Contact: Pat Acock/Alison Paul |
| Sun. 18 - Sun. 25 May | Week Field Meeting - Capo di Ponte, Italy
Leader/Contact: Enzo Bona/Paul Ripley |
| Sat. 21 June | Day Meeting - Savill Garden, Englefield Green, Surrey
Leader/Contact: Julian Reed |
| Fri. 27 - Sun. 29 June | Long Weekend Field Meeting - South Wales
Leader/Contact: Brian & Sue Dockerill |
| Wed. 23 - Sun. 27 July | *RHS Tatton Park Flower Show: BPS Stand (tbc)
Contact: Yvonne Golding |
| Thurs. 14 - Sun. 17 Aug. | *Southport Flower Show: BPS Stand
Contact: Michael Hayward |
| Sat. 13 - Sun. 14 Sept. | Weekend Field Meeting - North York Moors
Leader/Contact: Bruce Brown |
| Sunday 5 Oct. | Autumn Indoor Meeting - Chelsea Physic Garden, London
Leader/Contact: Mary Gibby |
| Sat. 11 Oct. | Day Meeting: <i>Polypodium</i> cultivars - Kyre, Worcestershire
Leader/Contact: Martin Rickard |
| Wed. 22 Oct. - Mon. 3 Nov. | *Field Meeting (with Hardy Fern Foundation) - Japan
Leader/Contact: Pat Riehl/Pat Acock |

** Event supported by, but not organised by, the BPS.*

For further details of these meetings please see the Meetings Programme sheets sent to members with the Autumn Mailing and also available on the BPS website. For general enquiries about meetings, contact the Meetings Secretary (Meetings@eBPS.org.uk).

REGIONAL MEETINGS

These meetings are open to all members, so if you are visiting one of the following areas you would be very welcome to join in. For details of meetings please see the BPS website or contact the regional organisers by e-mail, or by post enclosing a stamped addressed envelope.

- | | |
|---|---|
| Cornwall & Devon | Ian Bennallick, Lower Polmorla, St Wenn, Bodmin, Cornwall PL30 5PE
Cornwall@eBPS.org.uk |
| East Anglia | Tim Pyner, 182 Southchurch Boulevard, Southend-on-Sea, Essex
SS2 4UX; EastAnglia@eBPS.org.uk |
| Manchester &
N. Midlands | John Grue, Briarfield, Moss Lane, Broadbottom, Hyde, Cheshire
SK14 6BD; ManchesterNorthMidlands@eBPS.org.uk |
| North-West England | Peter Champion, Lake View, Castle Hill, Bassenthwaite, Keswick,
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| Scotland | Bridget Laue, 50 Liberton Brae, Edinburgh EH16 6AF; Scotland@eBPS.org.uk |
| South-East England | Paul Ripley, 2 Station Villas, Station Road, Appledore, Ashford, Kent
TN26 2DF; SouthEast@eBPS.org.uk |
| S. Wales & Borders | Brian Dockerill, 19 Westfield Road, Glyncoch, Pontypridd, Mid-Glam.,
CF37 3AG; SouthWalesBorders@eBPS.org.uk |
| Wessex | Jo Basil, 14 Royden Lane, Boldre, Lymington, Hants. SO41 8PE
Wessex@eBPS.org.uk |
| Yorkshire | Bruce Brown, 4 Bank Parade, Otley, West Yorks. LS21 3DY
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